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ENERGY EMERGENCY PREPAREDNESS

HEARING

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

FIRST SESSION

OVERSIGHT OF IMPLEMENTATION OF THE ENERGY EMERGENCY PREPAREDNESS ACT OF 1982 (PUBLIC LAW 97-229), WITH PARTICULAR EMPHASIS ON COMPREHENSIVE EMERGENCY RESPONSE PROCEDURES

MARCH 7, 1983

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ENERGY EMERGENCY PREPAREDNESS

MONDAY, MARCH 7, 1983

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, D.C.

The committee met, pursuant to notice, at 9:35 a.m., in room SD-366, Dirksen Office Building, Hon. James A. McClure, chairman, presiding.

Present: Senators McClure, Warner, Hecht, Ford, and Metzenbaum.

Also present: Charles A. Trabandt, chief counsel; E. David Doane, deputy chief counsel—energy; Richard D. Grundy, budget officer; Benjamin S. Cooper, professional staff member for the minority; and James T. Bruce, counsel for the minority.

OPENING STATEMENT OF HON. JAMES A. McCLURE, A U.S. SENATOR FROM THE STATE OF IDAHO

The CHAIRMAN. Good morning. This hearing is on the status of the United States energy emergency preparedness or more appropriately, lack of preparedness, to respond to severe oil supply interruption, sufficiently large enough to cause severe economic dislocations and hardships or constitute serious threat to public health, safety, and welfare.

In the judgment of the Congress, as found in the Energy Emergency Preparedness Act of 1982, "prior to the occurrence of such a shortage, the Federal Government has a responsibility to be prepared to mitigate the adverse impacts of such a shortage as a supplement to a reliance on free-market pricing and allocation of available petroleum product supplies."

Yet as the General Accounting Office has documented, if an energy emergency were to occur today we would be unable to mitigate its adverse impacts on public health, safety, and welfare.

Last year the Congress and the administration jointly formulated as national policy that:

> It shall be the policy of the United States that the Federal Government shall be prepared prior to any shortage of petroleum products to respond to energy emergencies pursuant to authorities under provisions of law other than this part as a supplement to reliance on the free market to mitigate the adverse impacts of a shortage of petroleum products on public health, safety and welfare.

Thus one must obviously ask why are we not better prepared? We have long accepted the fact that the United States should be prepared for the possibility of planning emergencies affecting national security. The contingency planning efforts of the Department of Defense are widely understood and accepted.

Energy emergencies also affect national security. This was dramatically demonstrated not only in 1973, but in 1978 and 1979, when a marginal shift in world oil supplies resulted in a doubling of oil prices. I am certain it was not good for the American economy and I am absolutely positive that it was threatening to our national security. The implications of a repeat of this experience are of critical importance for the security of the American people, and I have discussed my concerns with the President's National Security Adviser, William Clark, and with Secretary of Energy Don Hodel who is here with us today.

Last year before Secretary Hodel was confirmed in testimony before both this committee and the Interior Appropriations Subcommittee, administration witnesses set forth a specific schedule for putting in place the administration's energy emergency programs. Major reliance on the Executive Manpower Reserve and the Strategic Petroleum Reserve is proposed, was proposed and still is proposed.

However, as the General Accounting Office recently documented and will review today, many of these programs are still not ready and some may not be ready for months. For example, the major response options now available to the President are inadequately detailed and some face implementation problems.

Among the GAO's specific concerns are, one, key programs, notably the Strategic Petroleum Reserve, the Emergency Manpower Reserves, and some International Energy Agency programs face major implementation problems, two, some key policy issues such as coordination of Federal and State policies and programs are not adequately resolved; three, some key issues such as the role of private stock are barely discussed or are omitted all together from the DOE materials.

Only one conclusion is possible. Simply stated, the United States is not now prepared for a significant disruption of oil supplies, despite the progress that has been made during the last year under the Energy Emergency Preparedness Act of 1982.

If you boil down all of the emergency response mechanisms that are in place or have been discussed, you are left with the Strategic Petroleum Reserve. We can talk about the International Energy Agency agreements. We can talk about oil sharing arrangements. We can talk about the use of the Executive Manpower Reserve. We can talk about market mechanisms, and we can talk about emergency actions that might be initiated in the event of a severe supply interruption of any kind, but in the final analysis, the primary response we presently have in place is some oil in a reserve in the ground with a plan for its withdrawal, and if you have had a chance to examine that plan you would have your own ideas as to its strengths and deficiencies, but many of us believe that we dare not put ourselves in the position that we have found ourselves in twice before in the last 10 years where those who produce oil overseas, because of political reasons, not economic reasons, can distort the market in such a dramatic fashion as to endanger the welfare of not just the United States, but the world.

The obvious question is what is being done to assure achievement of the statutory policy that we prepared? This hearing will emphasize the comprehensive energy response procedures and the General Accounting Office analyses of the various statutory reports. In addition, the committee will review answers to questions submitted in advance to the witnesses.

[The questions follow:]

QUESTIONS
ENERGY EMERGENCY PREPAREDNESS
COMMITTEE ON ENERGY AND NATURAL RESOURCES
MARCH 7, 1983

PROCEDURES

1. Although required by EEPA, the procedures report gives very little information on how decisions would be made in selecting response options, and how they would be implemented. In addition, the report acknowledges that many of the procedures for selecting and implementing options are still not in place.

--Does the administration intend to develop specific procedures for responding to alternative types of energy emergencies? When would they be sufficiently developed so they could effectively be used in responding to an energy emergency?

2. The Energy Emergency Preparedness Act of 1982 proclaims it is the policy of the United States that the Federal government have adequate authorities to respond to energy emergencies as a supplement to reliance on the free market. Given the fact that the President must rely on authorities in several statutes which are triggered by different requirements, does the President have adequate authority to deal with energy emergencies? For example: the authorities in the Defense Production Act are generally utilized in connection with defense-related matters. While under both the Energy Policy and Conservation Act and the Emergency Energy Conservation Act certain demand restraint measures can only be implemented when there is a severe energy supply interruption.

3. Title II of the Emergency Energy Conservation Act of 1979 provides the President with discretionary authority to impose energy demand restraint measures in certain emergency circumstances. EECA will expire later this year. Does the Administration plan to seek renewal of EECA or these energy demand restraint authorities?

4. The Administration has given very little attention to the question of the President's authorities to require the substitution of alternate energy sources--principally coal, natural gas and electricity--during a serious petroleum crisis. Does the President have adequate authority to order the utilization of available alternate energy sources during a shortage of any one particular energy source, whether it be oil, gas, electricity or coal?

EMERGENCY EXECUTIVE MANPOWER RESERVES

5. The administration has stated that the Emergency Executive Manpower Reserves are an important part of its strategy to respond to a severe energy emergency. Both the procedures report and GAO's analysis of that report, however, cite several legal constraints on use of the Reserves.

--From a legal perspective, could the Reserves be used in non-defense-related emergencies, or must the President find that an emergency is defense-related in order to activate the Reserves?

--From a policy perspective, under what circumstances would the Reserves be used, and how would they be used?

--Does the administration intend to propose legislative solutions to the Reserves' conflict-of-interest and antitrust problems which the procedures report notes were the reason the Reserves were not used in the 1973 Arab oil embargo? What problems would legislative solutions

specifically? If so, when would such proposals be made?

6. Could you describe the impact the conflict-of-interest provisions of the Department of Energy Organization Act may have on the effective use of Executive Reservists? In particular, under what circumstances would the Department expect to use the limited authority lodged in the Secretary to waive certain of the statutory conflict-of-interest requirements?

7. The procedures report said that industry declined to participate in the Reserves during the 1973 emergency because of "official documentation and reactions by the press to the proposed action."

--What assurance exists that industry would now willingly participate in the program if they declined to do so in the 1973energy emergency?

--Have you talked with industry about this? What did various companies have to say?

FEDERAL PREEMPTION OF STATE REGULATORY ACTIONS

8. The January 24, 1983 Federal Register stated that commenters on the Comprehensive Energy Emergency Response Procedures Report expressed "widespread concern regarding the proliferation of energy emergency regulations among the States." The procedures report, however, barely discussed the issue, stating only that in a severe emergency "the Federal Government...may attempt to dissuade the States from enforcing price and allocation controls."

--What actions would the administration consider taking to "dissuade" the States from enforcing price and allocation controls?

--What authority exists to preempt State allocation and price controls should the administration find preemption necessary?

9. Does DOE believe some pre-emption statute is even needed in the absence of a standby price and allocation control authority? If not, why not?

10. What measures does the Administration suppose States will adopt in shortages of greater magnitude than experienced in the past?

11. What preemptive effect do the provisions in Title II of P.L. 96-102 have to head off potential conflict between Federal and State policies by assuring that State contingency plans are sympathetic to the Administration philosophy?

MITIGATION OF EFFECTS OF SHORTAGE

12. What is the status of planning to alleviate the economic burden imposed by sharp petroleum product price increases during shortages in which the market is relied upon to allocate product?

13. REVENUE RECYCLING

The Comprehensive Energy Emergency Response Procedures Report stated that, DOE is continuing its analysis of possible economic and financial mitigation response and/or recycling measures" in the event of a severe supply disruption. While the Report states that DOE has completed several drafts on the administrative feasibility of a revenue recycling plan, it also says that these analyses, "in no way imply that revenue recycling is judged to be an effective mechanism for mitigating adverse economic impact during a disruption." In DOE's judgment, is revenue recycling an effective mechanism for mitigating adverse economic impacts of disruptions? Does the Administration intend to use revenue recycling in disruptions and in what circumstances will it do so? What additional authority would be needed to implement a system that would work? To what extent could (or would) recycling take place under existing law?

14. It is my understanding that the Emergency Management Manual of the International Energy Agency provides that member countries achieve the 7% or 10% petroleum demand reductions of the IEP within 21 days of the activation of the IEA Emergency Sharing System. Does the Administration have in place on a contingent basis programs that would assure that the United States could achieve these petroleum demand restrictions reductions within 21 days?

PRIVATE STOCKS

15. The Administration claims in the Comprehensive Energy Emergency Response Procedures Report that private oil stocks play a major role in minimizing oil price increases in supply disruptions. However, experience tells us that oil companies tend to hold a minimal amount of emergency stocks and that stocks are built up rather than drawn down in disruptions. What assurances are there that oil companies will maintain adequate emergency stocks or draw them down in future disruptions?

16. Despite the importance the Administration places in private stock's ability to minimize price increases in disruptions, the Comprehensive Energy Emergency Response Procedures Report does not say whether any program for assuring the adequacy of private stock levels should be initiated or whether it is studying the issue. What does the Administration intend to do, if anything, to encourage industry to maintain adequate oil stocks and draw them down in disruptions? Is there a way to encourage the holding of private stocks at a cost that is cheaper than holding crude oil in a salt dome under the Federal SPR program?

17. If the private sector seems disinclined to stockpile in a quiet, stable market, what plans has the Administration for encouraging private sector stockpiling? Would the Administration invoke the Industrial Petroleum Reserve authorized under the Energy Policy and Conservation Act as a means of assuring net additions to nationwide stocks?

INTERNATIONAL ENERGY ISSUES

18. The GAO analysis of the procedures report states on page 13 that, according to the Acting Deputy Director of the Office of Energy Emergencies, "a firm decision has not yet been made on when--or if-- a fair sharing plan should be developed. GAO, however, asserted that a fair sharing system is "crucial" to the IEA's Emergency Sharing System.

--Does the administration intend to develop a fair sharing system? By when? What are the principal issues which must be addressed in designing such a system? What is your preference with regard to resolution of each of these issues?

19. The GAO report states that a major omission in the procedures report is whether U.S. involvement during an energy emergency in the NATO system would conflict with similar U.S. involvement in the IEA system. Because the two systems might be used simultaneously in an emergency, GAO notes that "a major communication and coordination problem might occur, adversely affecting the U.S. and overall allied contingency planning efforts."

--Is coordination in an emergency between the two systems a potential problem, and what is the administration doing about it?

20. The GAO report notes that strong differences exist between the U.S. and West Germany, on one hand, and other IEA member countries on the other hand, over how oil should be priced in an emergency.

--What position is the U.S. taking? What is West Germany's position?

--Has either side altered its position, and if not, how does the administration propose to resolve the dispute? Does U.S. policy remain committee to reallocating oil at spot price levels?

SPR USE QUESTIONS

21) Does the Administration intend to limit the SPR for domestic use, and if so, how does it intend to do this?

22) Does the Administration intend to sell SPR oil in a commodities futures market and does it believe it can do so without amending the current SPR Drawdown Plan? Would the Administration place any restrictions on who can purchase futures on SPR oil? Would the Administration require that SPR oil be used in a disruption and how would it do this?

23) The U.S. General Accounting Office's recent evaluation of the Comprehensive Energy Emergency Response Procedures Report raised the question of whether the Government can ensure that SPR oil would actually be used to alleviate an oil shortage or whether it would be retained in private stockpiles. GAO points out that the SPR Drawdown Plan is vague about what happens to SPR oil after the transfer of ownership at supporting terminals takes place. It leaves unclear the terms of DOE's "standard sales agreement" or whether the agreement would ensure that oil would not be retained in private stockpiles." How does the Administration propose to assure that SPR oil would be used to alleviate a shortage rather than be stockpiled? Specifically, does the Administration intend to alter the "standard sales agreement" to alleviate this concern? Does the Administration plan to develop a coordinated stock drawdown policy for the domestic petroleum industry? What would be the elements of this policy?

24. The SPR Drawdown Plan states that up to 10 percent of the volume of SPR oil can be set aside at the Secretary of Energy's discretion to alleviate hardships in a disruption. Under what circumstances would this oil be set aside? What plans has the Administration made for determining to whom it would sell this oil in a disruption? What data justifies the use of the 10 percent limit on oil available to the Secretary's discretion?

25) The SPR Drawdown Plan notes that the SPR could be used to satisfy U.S. obligations under the International Energy Program. Under what conditions and how would the SPR be used to support this U.S. committment?

26) Current DOE-funded research shows that the effect of the SPR on world oil prices depends on other nation's stock policies. If other nations build stocks during disruptions, the effects of SPR drawdown will be reduced, while coordinated drawdown would greatly enhance its effects. Does the Administration intend to develop a coordinated stock drawdown policy with our allies, and if so, when will it do so?

27) The Comprehensive Energy Emergency Response Procedures Report stated that two legal issues that should be resolved to facilitate distribution of SPR oil include the possible need to (1) amend the Defense Production Act to facilitate transportation of SPR oil and (2) amend the Export Administration Act to allow SPR oil to be refined in Caribbean refineries. While resolving these issues is crucial to the effective distribution and use of SPR oil, a recent GAO report pointed out that the Administration had not set a timetable for proposing remedial legislation. When does the Administration intend to propose needed legislation? Do you believe that transportation of SPR oil should be assigned DPA priority?

8. How has the DIREX-B test been designed to address very specific concerns or "trouble spots" in the mechanics of SPR distribution that have been already identified?

29. Many analysisists have argued that the current excess oil producing capacity in the world (about 10 million b/d) means that a low priority can be accorded to U.S. energy emergency preparedness for the rest of the decade. Others argue that economic recovery and a projected sharp decline in oil productive capacity in mature oil fields in the late 1980's will result in absorbtion of this excess capacity. What level of U.S. oil imports do you project for each year between now and 1990? What level of vulnerability to oil supply interruptions will exist in each of these years?

The **Chairman**. Subsequently, on March 17, Senator Warner's Subcommittee on Energy and Mineral Resources will convene separate hearings regarding the strategic petroleum reserve—drawdown plan, fill rates, and current construction program.

Senator Warner, do you have any statement?

Senator **Warner**. Not at this time.

The Chairman. Senator Hecht?

Senator **Hecht**. No.

The Chairman. Thank you very much, Senator. Secretary Hodel, we're glad to have you back before us. You are accompanied as I understand by Mr. William A. Vaughan, Assistant Secretary for Environmental Protection, Safety and Emergency Preparedness; Mr. George Bradley, Jr., Principal Deputy Assistant Secretary for International Affairs. You may introduce whomever else you wish that accompany you. We have your entire statement which will be placed in the record. You may summarize in whatever manner you would desire.

Secretary **Hodel**. Mr. Chairman, thank you. I am accompanied also by Thomas C. Newkirk, who is the Acting Deputy General Counsel for Regulation on my left, and by Assistant Secretary McCormack from the State Department, who I believe has a prepared statement also.

The Chairman. Yes, he has.

Secretary **Hodel**. First, Mr. Chairman, if I may, I would like to present for the record my prepared statement. I plan to summarize it and make some brief comments. Then I shall respond to questions.

The **Chairman**. Yes.

Secretary **Hodel**. And I would like to comment initially, Mr. Chairman, that Chairman Udall, before whom I was scheduled to appear shortly, has agreed to extend the beginning of that hearing so that I can stay longer with this committee.

The Chairman. Yes, sir. I understand that. I do know of the conflicting demand on your schedule.

Secretary **Hodel**. Thank you, Mr. Chairman.

STATEMENT OF HON. DONALD PAUL HODEL, SECRETARY, DEPARTMENT OF ENERGY, ACCOMPANIED BY HON. WILLIAM A. VAUGHAN, ASSISTANT SECRETARY FOR ENVIRONMENTAL PROTECTION, SAFETY AND EMERGENCY PREPAREDNESS; GEORGE BRADLEY, JR., PRINCIPAL DEPUTY ASSISTANT SECRETARY FOR INTERNATIONAL AFFAIRS; AND THOMAS C. NEWKIRK, ACTING DEPUTY GENERAL COUNSEL FOR REGULATION

Secretary **Hodel**. It was my desire to have the opportunity to be here long enough to answer some of the concerns that I know you and other members of this committee have. The statement which has been prepared deals in some specificity with a number of questions. It asserts that we are prepared in our view to respond to energy supply emergencies, and it deals in some detail with the concerns raised by the General Accounting Office in its report.

It seems to me that what I ought to do before attempting to respond to questions is to refer to the framework in which I believe we are operating. We have an administration, which is without question concerned about the national security capability of this Nation. We have sought increased expenditures for national security and defense purposes in the budget to the point where we have found ourselves now facing demands that we reduce the amount of increases which we seek. I think that we need take second place to no one in our concern for national security. I think that it is only right and proper that we should be in that position.

Further, it is my perception from the prior hearings that I have been through with this committee and other committees and certainly through the numerous meetings that our staffs have had that we share common goals with those on this committee who do not feel that we are where we must be or should be with regard to emergency preparedness. I think we share common concerns about the way in which we respond to a national emergency with regard to energy.

What I am concerned about is that there may be a misunderstanding on the part of some observers about the magnitude of the dispute between us, thinking perhaps it is over a portion of a broad strategic national security or our national defense program. We have not, I believe from my understandings of your concerns, Mr. Chairman, and those of the committee, greatly different ideas as to the course this Nation ought to pursue but rather we are within a framework of a common concern and a common goal, although there are very severe concerns on the part of this committee that we are not dealing adequately with one segment of that problem.

Clearly the process of preparing this Nation to defend against, and to respond to, energy interruptions is an on-going process. There may be a misperception as to how far along we were when this administration came into office, but I am informed that the emergency preparedness capability had, through a number of years and not just in the Carter administration, been given short shrift. I have some personal experience with that, Mr. Chairman, through 1977 when I was with the Bonneville Power Administration working with the Defense Electric Power Administration. On a number of occasions, it was necessary for Bonneville to aid directly and assist the maintenance of DEPA simply because the administration found no funds in the budget to support that program.

We have come a long way since that era. We are spending a significant amount of money and effort to catch up with the process. I suspect that some of our differences will be over the rate at which we are accomplishing these things and the rate at which we are preparing ourselves, but I would assert with confidence that we are better prepared today by far than we were 2 years ago. We are sufficiently well prepared today that in the event of an unexpected or expected energy supply disruption, particularly in the flow of oil, we would have the ability to respond in appropriate ways.

With that opening statement, Mr. Chairman, I would be happy to attempt to respond to your questions.

[The prepared statement of Secretary Hodel follows:]

STATEMENT OF DONALD PAUL HODEL
SECRETARY OF ENERGY
BEFORE THE
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
MARCH 7, 1983

Mr. Chairman, Members of the Committee, it is my pleasure to have this opportunity to appear before you today to discuss the implementation of the Energy Emergency Preparedness Act of 1982 (P.L. 97-229) (EEPA), and the energy emergency preparedness policies of this administration. I am accompanied today by William A. Vaughan, Assistant Secretary for Environmental Protection, Safety, and Emergency Preparedness, George J. Bradley, Jr., Principal Deputy Assistant Secretary for International Affairs, and Thomas C. Newkirk, Acting Deputy General Counsel for Regulation.

Before responding specifically to the issues raised in the Chairman's letter of invitation, I would first like to discuss generally the current situation with respect to energy emergency preparedness.

THE UNITED STATES IS PREPARED TO RESPOND TO ENERGY SUPPLY EMERGENCIES.

First of all, I can assure you Mr. Chairman, and Members of this Committee, that the United States is fully prepared to respond to any energy emergency situation, and our level of preparedness today is better than at any time in the past decade.

In making this statement I do not mean to imply that our emergency preparedness program is perfect, nor am I suggesting that we are standing still on continuing improvements to the program. Nevertheless, I believe it is important to look towards ways we can all work together to improve the President's market-based energy emergency preparedness program, rather than continuing to harken back to a program of mandatory price and allocation controls which created tremendous dislocations and economic losses during the time they were imposed.

Let me describe briefly the basis for my statement that our Nation is prepared to deal with a severe energy supply emergency, should one occur. First, one should not ignore the extremely favorable world and domestic energy supply picture for all fuels. The current world energy supply outlook is strong, barring a major oil supply disruption. Excess productive capacity is present in coal and electric power generation, natural gas is plentiful, and oil prices are declining.

Oil supply availability has increased since the second oil price "shock" of 1979, while demand has declined some 20% from peak consumption by non-OPEC consumers. OPEC crude oil output has been operating at roughly 50% of capacity for a year or more, while non-OPEC sources have increased their share of world production, exceeding OPEC in actual output for the first time in 1982. Excess refining capacity (currently 30-35% in the U.S.), together with upgrading of remaining facilities has given consuming nations much more flexibility in choosing crude oil types. This trend, combined with excess capacity in world oil shipping, has created a much more flexible world market than the predominately fixed contract, limited processing capability environment of the pre-1979 period.

Although inventories have been drawn down in recent years with world levels declining some 500 million barrels from 1981 to 1982 to roughly 4.8 billion barrels, Government strategic reserves increased to some 650 million barrels world wide in this period. At the same time, consumption has fallen and inventories relative to consumption have remained at high levels. At the end of 1982, for example, world stocks represented some 105 days of forward quarter consumption, compared with only 85 days in 1978.

Along with this favorable fuel supply picture our energy emergency posture is bolstered tremendously by the free market activities in the energy area. Without the artificial restraints of Government regulation of petroleum products, and without the misleading signals conveyed by price controls on oil, petroleum products are now able to move freely to respond as needed to changing patterns of demand. This flexibility of market operation would be additionally improved upon with a reform of natural gas regulations. This important step in the President's deregulation program would continue to provide incentives for production of energy supplies, while affording protection to consumers.

Of the four major parts of the Administration's energy preparedness program, permitting the free market to operate is the most important. The other three segments are: availability of Strategic Petroleum Reserves; appropriate programs, such as information dissemination and the Executive Manpower Reserve, to mitigate adverse impacts of severe energy supply disruptions; and U.S. participation in international energy emergency programs such as NATO and the IEA. Today, the Strategic Petroleum Reserve contains over 304 million barrels of crude oil and is currently being filled at a rate of 220,000 barrels per day. This volume is almost three times the amount in inventory when President Reagan began his Administration two years ago. This is a significant achievement, especially during a period of serious economic and fiscal problems. Due to these efforts, the

Strategic Petroleum Reserve now represents a significant source of emergency fuel supplies in the event of a severe energy crisis. For example, in the event of a very severe supply disruption, in which the U.S. might loose half of its oil imports the Reserve currently would provide protection for about 150 days, assuming 1982 import rates.

In terms of mitigation of the adverse impacts of possible energy supply disruptions, this Administration has not been standing still. A number of programs have been developed or are under development to deal with potential energy supply problems, before, during, and after an emergency situation arises. We have developed a number of organizational structures, such as the DOE's emergency response working group, which we have tested in simulated exercises and real world situations. We know they are not flawless but the exercises are helping to better define our weaknesses. We also have a number of ongoing public information and liaison activities; we have better revitalized the National Defense Executive Reserve Programs. In addition, we are analyzing alternatives for economic responses to mitigate hardships during an energy supply emergency. Later on in my statement, I will describe in more detail some of these programs.

Certainly we have more work to do in the area of energy emergency preparedness: preparedness is a state of constant readiness, which by its very nature can never be static. Some of our problems can be eliminated or greatly reduced, others will always remain troublesome simply because of the nature of the circumstances to which we must respond in an emergency. Perhaps our major problem in the area of energy emergency preparedness is the fact that we will never know precisely what kind of emergency will occur. While this may seem to be an obvious point, in that human beings have not been granted the ability to predict the future with certainty, the point seems to be overlooked in the General Accounting Office reports, as reflected by its persistent request for more and more specificity as to what would be done in each and every potential crisis scenario.

Another major problem we face is the perception which persists in some quarters that the Administration's market-based energy emergency preparedness program will not work in a real crisis, and that the President or the Secretary of Energy will resort at such time to the same old price and allocation control systems which have failed in the past. Underlying this misplaced nostalgia for controls is the wishful search for a policy that would guarantee against economic harm in the event of adverse world conditions. Mr. Chairman, and Members of this Committee, if the free market approach, as supported by this Administration, will not work, then nothing will. We know from past experience with price controls and allocation programs that they certainly did not work. Petroleum prices skyrocketed despite the price controls and huge lines formed at gas stations because it was impossible for the regulators to keep up with the changing market situation. We have seen no evidence to suggest that such programs will work now or in the future.

I fully support President Reagan's commitment to a market-based energy emergency preparedness program. It certainly will work better than the regulatory approaches of the past. It will require the citizens of the United States of America, from every section of the country, from every sector of our economy, from every area of political and economic thought, to participate in the cooperative and voluntary process of ensuring energy security. Each and every one of us can make a contribution, if we are willing to take the responsibility upon ourselves, to act in our own self interest rather than clinging to the hope that somehow our Government can relieve us of all responsibility and shield us from the adverse impacts of oil supply disruptions. In the long run, all of us will be better off for having made this effort.

SPECIFIC COMMENTS ON GENERAL ACCOUNTING OFFICE REPORTS

As the invitation letter from the Chairman noted, the General Accounting Office has completed two analyses of the reports submitted to Congress to date pursuant to the EEPA. The first GAO report, dated January 3, 1983, concerned the SPR Drawdown Plan and SPR Drawdown and Distribution Report. The most recent GAO report dated February 17, 1983, covered the Comprehensive Energy Emergency Response Procedures Report. Attached to my testimony today is a copy of the DOE's written comments on the first GAO report.

While the GAO reports raised some interesting points, by and large we disagree with the general thrust of the GAO reports that the materials submitted pursuant to EEPA were not sufficiently specific or that the United States remains unprepared to deal with an energy supply disruption. Let me briefly address each GAO report in turn, responding to specific criticisms which were raised in those documents.

GAO REPORT ON SPR DRAWDOWN PLAN AND SPR REPORT

The major criticism leveled by GAO at the SPR reports is GAO's insistence that they are too vague and do not provide specific guidance on those specific circumstances where the SPR would be used, or on how that decision would be made. GAO criticizes DOE for what it calls a failure to do advance contingency planning, and also criticizes DOE for not describing in detail the circumstances under which the ten percent special hardship provision in the SPR plan would be utilized.

Mr. Chairman, the decision on whether or not to utilize so significant a national asset as the SPR must necessarily be a judgmental decision. If the considerations underlying its potential use, and the weight of various factors calling for such use were that clear cut, or that easily quantifiable, and were that well known in advance, we would be operating in a perfect world. As much as we might long for such simplicity, decisionmaking is just not that simple.

The reports submitted to Congress pursuant to EEPA outlined a framework for decisionmaking on the use of the SPR. We described factors that would be considered, the ranges of different scenarios that might weigh in favor or against use of the SPR, and some of the management and information systems available to make the SPR drawdown decision. We also provided, in the Staff Report submitted along with the other reports, a description of some computer simulations of the impact of an SPR drawdown under various assumptions relating to price and supply of crude oil.

GAO suggests we should have provided additional computer runs. In response to this I can only say that given the extremely short time provided for submission of the EEPA reports, I am quite proud of the fact that all of the reports were completed and ready for submission to Congress on or before the dates specified by the statute. More important, however, is the fundamental question whether additional computer simulations would have aided the Congress in understanding how the Administration views use of the SPR. The number of possible world and domestic social, political and economic situations are virtually limitless. Rather than engage in an never-ending computer modelling exercise, we provided a candid and descriptive review of the framework within which SPR use decisions would be made. This is far more useful than attempting to detail a list of possible scenarios, none of which are likely to occur in exactly the form being simulated.

This is not to say the Administration is not performing advance contingency planning with respect to the SPR. As the Staff Report on SPR policy planning activities clearly indicates, the Administration has conducted and is continuing to perform a wide range of analytical studies concerning the use of the SPR, the relationship of the SPR to private sector inventory behavior, and the relationship of U.S. public and private inventory decisions to the decisions of our allies around the world. These activities are a more appropriate use of our manpower and resources than an infinite number of "what if" scenarios.

GAO REPORT ON COMPREHENSIVE ENERGY EMERGENCY RESPONSE PROCEDURES

Once again, the essence of GAO's complaint is that the report was not specific enough, that the scenarios were too general that the relationships among decisionmakers are too vague, and that one cannot discern from the reports exactly how every decision will be made, who will make those decisions and what those decisions will be. In addition, GAO criticizes the fact that many of the Administration's emergency response programs are still incomplete thereby raising questions as to their utility in an emergency situation. While GAO has raised some valid concerns in specific parts of the report, we disagree fundamentally with GAO's critique. A written response will be provided by DOE within the near future.

We believe there is no merit to GAO's criticism that the report on comprehensive energy emergency procedures is too vague because it failed to specify every detail of the decisionmaking process. As GAO acknowledges, we described the organizational entities and individuals who would likely be involved in the decisionmaking process concerning a possible energy emergency situation. We respectfully submit that it is unreasonable and impossible to detail precisely upon whom and to what relative degree the President would rely to make what particular decision in all possible future emergency situations that may arise. Thus, GAO's complaint that "it is unclear what kinds of decision would be made by the Secretary of Energy, which decisions would be left to the Executive Office of the President, and what the decisionmaking roles would be of other participants in the process," reflects more a complaint about the nature of interactive decisionmaking by human beings, than a valid complaint about energy emergency preparedness in the United States.

In summary fashion, our response to GAO criticism of specific programs is as follows:

SPR

The new SPR Drawdown Plan was submitted to Congress and became effective on December 1, 1982. Obviously, it was not possible by December 31, 1982, when the report on Comprehensive Energy Emergency Response Procedures was submitted, to have completed all of the necessary procedural steps to implement the new SPR Drawdown Plan. However, we are working as quickly as possible to develop the regulatory and management documentation and procedures to ensure full implementation of the new SPR Plan. By the time of the scheduled simulation test of the SPR Drawdown Procedures (called "DIREX-B" currently scheduled to commence in July 1983), we will have prepared all of the essential documentation required for SPR Drawdown.

The DIREX-B is an exercise aimed at assessing DOE's ability to effect an SPR drawdown in a fashion consistent with the procedures set forth in the SPR Distribution Management Manual. The manual presently addresses approximately 50 separate actions required to draw down the SPR, including those involving:

-- Decisionmaking: The preparation of Situation Analysis Reports and Response Options Papers for the Secretary or the President.

-- Sales Management: The preparation of Standard Sales Provisions, Notices of Sales, and the processing of Offers to Purchase.

-- Operations Management: Procedures to assure operational readiness and perform drawdown actions at the SPR sites.

For each action, the responsible officer, function, and sequence of actions is identified. The manual was first published as an interim draft in April 1982, and is being updated to reflect changes in policy and sales management introduced by the new SPR Drawdown Plan (Plan Amendment No. 4).

The DIREX-B exercise will be a DOE-wide effort, and will involve the substantial participation of all offices whose responsibilities are essential to an SPR drawdown. Current plans call for it to begin in the summer of 1983.

The DIREX-B exercise will focus on an evaluation of the management and administrative process. Its principal objectives will be to:

-- Verify that procedures and data essential to a drawdown are in place.

-- Verify that those procedures are practicable.

-- Demonstrate the adequacy of the system response process to generate rapid emergency response recommendations and speedily implement SPR use decisions.

-- Identify required modifications and improvements.

It is my firm belief that so important an agency action must be well rehearsed in advance, and that managers must be fully cognizant of the responsibilities they will bear in any SPR drawdown action. Accordingly, to the maximum extent feasible, I and all appropriate Secretarial Officers and senior managers will directly participate in the performance of the tasks required by DIREX-B, will address the recommendations generated by the Assessment Team with care, and will move quickly to introduce desirable improvements into the SPR distribution management system.

EMERGENCY EXECUTIVE MANPOWER RESERVES

While GAO is correct that significant legal issues remain concerning the most effective use of the Executive Reserve Program to respond to energy supply emergencies, we do not agree that these problems prevent continued development of the Executive Reserve Program. At the present time, without resolution of the legal issues, we are still able to revitalize the National Defense Executive Reserve Program by appointing new members to the Reserves, preparing appropriate handbooks and program plans, and beginning to establish a training program to involve the Executive Reservists in the energy emergency preparedness activities of the Department of Energy.

Meanwhile, we are proceeding as quickly as possible to address the legal issues involving antitrust, conflict of interest, and Federal Advisory Committee Act problems, in order to maximize the usefulness of the Executive Reservists during (and possibly before) an energy emergency. Although the precise specifications have not been completed, we have identified several areas in which further analysis is needed to determine whether legislative changes may be necessary. Under review are proposals to give the President the authority to provide appropriate relief to reservists from the antitrust laws and from Federal conflict of interest laws, including the criminal conflict of interest provisions, the financial disclosure provisions and publication requirements, and the Department of Energy Organization Act conflict of interest provisions, upon a finding that the national interest requires such action. In addition, an exemption for reservists from the Federal Advisory Committee Act is under review. This is out of concern that collective advice might be sought or provided, and that even after the Reserves have been activated, continuing or contingent ties of participants to their former employers could raise an issue of applicability of the advisory committee laws.

As a related matter, we also are considering proposals to provide an antitrust defense for voluntary U.S. energy company actions to fulfill United States NATO oil supply commitments and bilateral oil supply agreements, and to enhance the existing antitrust defense and provide a breach of contract defense for companies participating in domestic voluntary agreements which may be useful during energy emergencies.

INTERNATIONAL ENERGY PROGRAMS

The Administration is fully supportive of U.S. participation in the International Energy Program and NATO's Wartime Oil Organization.

We fundamentally disagree with the GAO position that we lack adequate "demand restraint" measures which might be required under the International Energy Program. With a market-oriented policy, rising prices will serve quickly to dampen demand. And unlike mandatory conservation regulations, price-induced conservation ensures effective use of every available drop of oil and does not impose arbitrary and counter-productive restrictions on our citizens. In addition, public information and liaison programs can augment this influence by encouraging voluntary conservation. And contrary to the suggestion in the GAO report, price increases and emergency public information programs do not require a long lead time to implement: they can be operative immediately.

The GAO report dealt only briefly with the NATO Wartime Oil Organization, but we are satisfied that the IEA's and NATO's energy emergency programs are not inconsistent. We are working with our allies to make both programs as effective as possible.

FEDERAL AND STATE COORDINATION

The Comprehensive Energy Emergency Procedures Report described a number of programs where DOE is actively working with State and local authorities to encourage market oriented energy emergency preparedness planning. DOE has provided information to State and local Governments about the problems with attempting to implement price and allocation type systems; DOE has suggested market-oriented approaches to emergency planning; and DOE has made it clear to State and local Governments that undue interference with interstate commerce will be challenged by the Federal Government.

FEDERAL GOVERNMENT ENERGY EMERGENCY PREPAREDNESS MEETS THE FUNDAMENTAL TEST

I began my testimony today by telling you that the United States is prepared to respond appropriately to a severe energy supply emergency should one occur. But how can we be sure of this until we are faced with another energy crisis?

Certainly, no one in this room would suggest that we create a crisis situation in order to prove the validity of this Administration's commitment to a free market for energy distribution and pricing. We have participated in a number of simulations and tests which give us an opportunity to practice and refine our emergency preparedness capabilities. Through these tests and exercises we have gained confidence in our procedural mechanisms, and they have confirmed our confidence that the marketplace is the best mechanism to respond to energy emergency situations.

In the real world we have also had opportunities to test our problem-solving abilities. From assisting a civil air patrol search to obtain aviation fuel late one evening, to assisting a defense contractor obtain needed supplies for special jet fuel, to coordinating the availability on a voluntary basis of electric utilities' supplies of distillate and residual fuel stocks in New England, the Department of Energy has worked effectively in the context of the Administration's market philosophy to assist in the resolution of actual energy problems without resort to intrusive or mandatory programs.

I have attached to my testimony, as requested by the Chairman's letter of invitation, responses to the questions posed by that letter.

Thank you very much. At this time I would be pleased to respond to any questions which Members of the Committee might care to raise.

DOE COMMENTS ON GAO REPORT

"ANALYSES OF THE STRATEGIC PETROLEUM RESERVE DRAWDOWN PLAN AND THE STRATEGIC PETROLEUM RESERVE DRAWDOWN AND DISTRIBUTION REPORT"

GAO/RCED-83-85

The General Accounting Office (GAO) did not supply specific recommendations to the Secretary of Energy and the Department of Energy (DOE) in its January 3, 1983, report to Senator James A. McClure, Chairman of the Committee on Energy and Natural Resources, Senator John Warner, Chairman of the Subcommittee on Energy and Mineral Resources, Senator Henry M. Jackson, and Senator Bill Bradley. The GAO report did, however, contain a number of observations critical of the contents of the Strategic Petroleum Reserve (SPR) reports provided to Congress by DOE in response to requirements of the Energy Emergency Preparedness Act of 1982 (EEPA) (Public Law 97-229).

Although not presently required to do so, DOE believes that two principal criticisms of the report should be addressed to correct misconceptions. Those criticisms are summarized and responded to below.

GAO Observations

The GAO report contends that the SPR Drawdown Plan and the SPR Drawdown and Distribution Report do not adequately disclose precisely what circumstances would result in a drawdown of the SPR, and what the drawdown rate might be.

While GAO concurs that the President should have abundant flexibility in the use of the SPR, it suggests that the lack of detailed planning of alternative SPR use strategies would impede the rapid and informed decisionmaking required during a petroleum supply emergency situation. The GAO states that the documents contain far less information than was expected by the Congress and that the presentation of alternative interruption scenarios and response strategies are considered inadequate.

DOE Comments

The DOE strongly disagrees with GAO's conclusion that the level of detail set forth in the SPR Plan and SPR Report reflect an insufficient level of advance planning. Both of these documents, in fact, provide considerable discussion and detail concerning the potential use of the SPR, the selection of buyers, the method for establishing a selling price, and factors to be considered in determining the timing and rate of a SPR drawdown.

The DOE staff paper outlines past and ongoing work related to the use of the SPR, including an assessment of the impacts of various contingency response alternatives. In addition, DOE has prepared and will test this summer a draft SPR Distribution Management Manual which contains comprehensive procedural guidance for determining the need for a SPR drawdown and for sales and operations management.

Together these documents reflect a concerted effort on the part of DOE to establish practicable procedures to rapidly assess the dimensions of an energy crisis, develop candidate response options, and provide to the President a recommendation on the use of the SPR. DOE does not believe that it is appropriate to establish, in advance, a specific trigger or formula governing the use of the SPR because of the many and real uncertainties likely to be encountered during an interruption which cannot well or usefully be predicted prior to an emergency. The level of detail advocated by GAO would not measurably enhance our energy preparedness posture. Instead, DOE will continue to test and refine its energy assessment and decisionmaking capabilities and will continue to explore SPR use options where these appear to have practical merit in coping with energy emergencies.

(1) The GAO report reflects a misperception of what strategy alternatives are available for the distribution of SPR oil. There are only two: reliance on free market mechanisms and allocation programs. The SPR reports make clear the evident advantages of the marketplace, and SPR use planning and drawdown actions will focus on those which utilize and enhance marketplace adjustments.

(2) The development of endless shortage scenarios and related response options will not credibly improve SPR drawdown decisionmaking over current systemic and data identification objectives. As the SPR reports

clearly indicated, and as was noted above, the extraordinarily high degree of uncertainty related to the assumptions of a shortage, the impacts of SPR drawdown decisions, and the behavioral effects of a drawdown on credit markets, consumer confidence, and other variables all serve to levy a real limit on the utility and practicality of such advance planning. DOE is pursuing what it believes to be a practicable balance between what GAO recommends and what is efficiently essential to SPR decisionmaking. The oil supply and price changes of the past year underscore the fact that pre-emergency plans based on explicit postulated circumstances are rapidly rendered obsolete.

(3) The GAO report fails to appreciate the capabilities of the current DOE dynamic programming model discussed at some length in the staff paper. The reason for drawing down SPR oil during a disruption will be to reduce the cost of that disruption. Any optimal drawdown strategy (how much to draw over what period of time) will, therefore, seek to maximize the net economic benefits of the entire SPR program (i.e., over the full useful life of the Reserve). This is exactly what the dynamic programming model determines. However, its analysis of alternative strategies does not simply involve varying the drawdown rate, as GAO claims. Instead, it consists as well of varying the assumptions which describe the state of the world at the time of a disruption and the expected state of the world in future time periods. Given an expectation of the duration of a disruption, the probability of future disruptions, the potential to refill the SPR between disruptions, and projected supply and demand curves, the model is currently capable of selecting an optimal drawdown strategy during a disruption. This strategy also maximizes the expected net economic benefits of the entire SPR program by accounting for uncertainty about future market conditions.

As better information becomes available about the length, severity, or other circumstances related to the disruption, the analysis can be modified to produce a new optimal strategy based on the additional information. Presently, the model concentrates on economic variables and does not address variables which are difficult or impossible to specify, such as those dealing with international conditions or national defense. The dynamic programming model is able to account for most variables relevant to a SPR use decision and reach a definite conclusion regarding the optimal drawdown and acquisition rate for each time period and each market state.

(4) The GAO report too easily dismisses the capabilities reflected in the staff paper by suggesting it did not represent an official Administration position. Clearly, the staff paper's intention was to demonstrate systemic and analytical capabilities, not present definitive Administration positions on drawdown options in the absence of reliable shortage scenarios. Tables I-III did, however, postulate response options for a shortage in 1983, and the staff paper addressed nine other drawdown alternatives based on differing disruption assumptions. In so doing, the staff paper further underscored DOE's analytical capability and expertise and its solid systemic preparations for dealing with SPR drawdown decisions.

(5) The DOE further disagrees with GAO's perception that extensive pre-identification of multiple shortage scenarios and responses would better lay the groundwork for coordinated stock drawdown policies with our allies, reduce panic buying, or deter an oil embargo. The best deterrent to an embargo is the existence of the SPR itself. Drawdown coordination with our allies will inevitably be heavily dependent on conditions prevailing at the time of the shortage, which cannot easily or productively be identified in advance. The staff paper noted, nonetheless, that this subject is being further studied by DOE, supplemented by the work of the Harvard Energy Security Project.

(6) Finally, the GAO report contains a number of internal contradictions. A prime example is its suggestion that the SPR reports reflect no clear connection between stated SPR use objectives and policy considerations and decisions on when and how to use the SPR. This is done in spite of GAO's: (a) explicit acknowledgement that the SPR Plan provides for price-competitive sales, (b) acknowledgement without criticism of the Administration's view that rigid plans for SPR drawdown and distribution make little sense and, if developed and made public, could impair the effective use of the SPR, and (c) expression of support for the Administration's rejection of an automatic trigger mechanism and its desire for maximum Presidential flexibility.

GAO Observations

The SPR Drawdown Plan does not specify the circumstances under which up to 10 percent of the volume of SPR oil released in a calendar month would be distributed by the Secretary of Energy. The basis for establishing this volume at 10 percent is not clear, nor is it certain that the volumes of oil released for directed sale under this "set-aside" provision would be adequate.

DOE Comments

First, the 10 percent provision is not properly characterized as a "set-aside" since it is not designed to hold back oil supplies in the event of a disruption. Rather, the provision is intended to supply oil to buyers or a class of buyers, as noted in the SPR reports, on a discretionary basis and only under extraordinary circumstances. The 10 percent directed sales provision was seen as a wise margin of flexibility in dealing with supply distribution deficiencies of potentially extreme consequence which may occur despite the pursuit of all other prudent emergency preparations.

It should be noted that the 10 percent provision will, wherever possible, be applied in a manner which is compatible with normal free market adjustments. For example, all oil released under this authority will be sold competitively and as near to current market prices as is possible, as was noted in the SPR reports.

Finally, it should be stressed that the size and capacity to draw down the SPR will markedly increase over the next few years, and this will have a salutary effect on the volumes of SPR oil potentially available for distribution under the 10 percent provision. For example, the drawdown rate capability is scheduled to increase from its current drawdown capability of 1.7 million barrels a day to 3.5 million barrels a day when Phase II is completed and to 4.5 million barrels a day when Phase III is completed. The DOE believes that, in concert with the increased levels of storage planned for those years, the volume of SPR oil potentially available through the exercise of the directed sales provision is now and will continue to prove substantial.

DOE is examining all considerations related to the exercise of the new directed sales authority, including specific criteria for its application during an energy disruption.

Question 1: Although required by EEPA, the procedures report gives very little information on how decisions would be made in selecting response options, and how they would be implemented. In addition, the report acknowledges that many of the procedures for selecting and implementing options are still not in place.

--Does the administration intend to develop specific procedures for responding to alternative types of energy emergencies? When would they be sufficiently developed so they could effectively be used in responding to an energy emergency?

Answer: As stated in the "Report to Congress: Comprehensive Energy Emergency Response Procedures", the Administration believes that effective energy emergency preparedness lies in developing processes for anticipating and responding to a multitude of potential crisis situations. Preparedness is a constantly evolving, constantly changing set of strategies, which are continually adapted to new foreign and domestic circumstances.

We do not intend to develop volumes of detailed procedures relating to multitudes of specific energy emergencies which will likely never occur as postulated. We do, however, plan to continue to develop, refine, and test the overall emergency response process and individual response measures listed in the Appendix of the Comprehensive Procedures Report.

Question 2: The Energy Emergency Preparedness Act of 1982 proclaims it is the policy of the United States that the Federal Government have adequate authorities to respond to energy emergencies as a supplement to reliance on the free market. Given the fact that the President must rely on authorities in several statutes which are triggered by different requirements, does the President have adequate authority to deal with energy emergencies? For example: the authorities in the Defense Production Act are generally utilized in connection with defense-related matters. While under both the Energy Policy and Conservation Act and the Emergency Energy Conservation Act certain demand restraint measures can only be implemented when there is a severe energy supply interruption.

Answer: Yes. Ample authority exists to deal with energy emergencies. Sections 202 and 251 of the Energy Policy and Conservation Act of 1975 (P.L. 94-163) authorize the United States to meet its obligations under the International Energy Agency and to restrict the public and private use of energy. The Emergency Energy Conservation Act of 1979 (P.L. 96-102) authorizes restrictions on the end-use of energy. The Defense Production Act of 1950 (P.L. 81-774, 50 U.S.C. App. 2061 *et seq.*) provides authority to allocate energy supplies for national defense purposes should it become necessary during a major disruption. Section 404 of the Powerplant and Industrial Fuel Use Act of 1978 (P.L. 95-620) and the waiver authority under section 110(f) of the Clean Air Act Amendments of 1977 (P.L. 95-95, 42 U.S.C. 7410) encourage fuel switching and increased efficiency in fuel use.

Section 202 of the Federal Power Act (16 U.S.C. 792 *et seq.*), provides an additional legislative authority to deal with electricity-related emergencies, such as

Answer 2 (Cont'd):

issuing orders for emergency interconnections and developing electricity emergency plans. Section 232(b) of the Trade Expansion Act of 1962 (P.L. 87-794) provides authority to impose fees and quotas on oil imports based upon findings that oil imports threaten national security. Sections 301 to 304 of the Natural Gas Policy Act of 1978 (P.L. 95-621) provide emergency authority related to natural gas supplies during a severe shortage. Section 607 of the Public Utility Regulatory Policies Act of 1978 (P.L. 95-617) provides authority to prohibit the burning of natural gas by any electric powerplant or major fuel- burning installation. Authority also exists under the International Emergency Economic Powers Act of 1978 (P.L. 95-223) to declare a national emergency to deal with any unusual and extraordinary threat to the national security, foreign policy, or economy of the United States.

Section 161 of the Energy Policy and Conservation Act of 1975 (P.L. 94-163) provides for drawdown and distribution of the SPR oil during a severe supply interruption. A new plan for such distribution took effect December 1, 1982.

During a severe interruption, if there is a need to have NPR surge production the law contemplates that the President may ask the Congress for a joint resolution authorizing it.

These and other authorities are discussed in more detail in the Legal Memorandum prepared by the Office of Legal Counsel of the Department of Justice pursuant to EEPA. While the triggering provisions of the various authorities are somewhat different, we do not believe this detracts from their adequacy to respond to energy emergencies.

Question 3: Title II of the Emergency Energy Conservation Act of 1979 provides the President with discretionary authority to impose energy demand restraint measures in certain emergency circumstances. EECA will expire later this year. Does the Administration plan to seek renewal of EECA or these energy demand restraint authorities?

Answer: No. In the President's 1982 Annual Report to Congress on EECA, the Administration recommended that Title II, Part A, be permitted to expire in July 1983.

Question 4: The Administration has given very little attention to the question of the president's authorities to require the substitution of alternative energy sources--principally coal, natural gas and electricity--during a serious petroleum crisis. Does the President have adequate authority to order the utilization of available alternate energy sources during a shortage of any one particular energy source, whether it be oil, gas, electricity or coal?

Answer: The President's authorities to require the substitution of alternate energy sources are discussed in detail at pages 50-52 of the Legal Memorandum prepared by the Office of Legal Counsel of the Department of Justice. Generally, these authorities are adequate. However, as pointed out in the Legal Memorandum, the ability to allocate natural gas supplies to a dual capacity facility (other than a defense facility) during a petroleum shortage would be dependent upon the coexistence of a significant national gas shortage.

More importantly, the Administration believes that reliance on the market during an emergency will be the most effective way to induce substitution of alternative energy sources when petroleum is in short supply.

Question 5: The Administration has stated that the Emergency Executive Manpower Reserves are an important part of its strategy to respond to a severe energy emergency. Both the procedures report and GAO's analysis of that report, however, cite several legal constraints on use of the Reserves.

--From a legal perspective, could the Reserves be used in non-defense-related emergencies, or must the President find that an emergency is defense-related in order to activate the Reserve?

--From a policy perspective, under what circumstances would the Reserves be used, and how would they be used?

--Does the Administration intend to propose legislative solutions to the Reserves' conflict-of-interest and antitrust problems which the procedures report notes were the reason the Reserves were not used in the 1973 Arab oil embargo? What problems would legislative solutions specifically? If so, when would such proposals be made?

Answer: The Executive Reserve Organizations are composed of two types of employees, members of the National Defense Executive Reserve authorized by section 710(e) of the Defense Production Act ("NDER's"), and Special Government Employees Serving Without Compensation pursuant to section 710(b) ("WOC's"). WOC's can be used even prior to an emergency, in various kinds of emergency preparedness tasks. In contrast, NDER's can only be activated during "periods of emergency"; therefore, the question pertains only to the NDER component of the Executive Reserve Organizations. (NEDR's may, of course, be involved in training activities prior to an actual emergency.)

Answer 5 (Cont'd):

Although the Defense Production Act does not define what is meant by "emergency," the Memorandum of Law prepared by the Justice Department's Office of Legal Counsel in accordance with the requirements of the EEPA advised that:

> [A]ctivation of the Reserve would depend on the existence of an emergency that, in the language of the Declaration of Policy, "would adversely affect the national defense preparedness of the United States." (p. 36)

However, the Memorandum of Law also pointed out that:

> [T]he DPA's Declaration of Policy expressly contemplates that disruptions in energy supplies may affect the national defense interests of the United States.... Therefore, the President has broad discretion, in the event of a disruption in petroleum supplies, to determine that an energy emergency exists that could threaten national security or national defense preparedness and that would therefore justify activation and use of the Executive Reserve to assist in meeting the emergency. (P. 37)

From a policy perspective, we are revitalizing the Reserves to be available to respond to declared national defense emergencies. We are currently in the process of evaluating other possible uses for the Executive Reserve program, but no decisions have been made at this time.

Question 6: Could you describe the impact of the conflict-of-interest provisions of the Department of Energy Organization Act may have on the effective use of Executive Reservists? In particular, under what circumstances would the Department expect to use the limited authority lodged in the Secretary to waive certain of the statutory conflict-of-interest requirements?

Answer: Upon activation in an emergency, Reservists would become either regular or special Government employees of the Department. The conflict-of-interest provisions of the Department of Energy Organization Act (Title VI, Part A, P.L. 95-91) create, in effect, two categories of employees for conflict-of-interest purposes: "supervisory employees", and all others. "Supervisory employees" currently constitute approximately 5% of the Department's total employment and include all regular employees at the GS-16 level or higher, all contracting officers regardless of grade, and the two top officials of each of the Department's field offices regardless of grade. Special Government employees (experts and consultants) are included in this category if they are paid at the daily rate of GS-16 ("step 1") or higher and are employed for more than 90 days in a calendar year.

Except for the section 603 requirement for public disclosure of energy concern interests, which is applicable for all Department employees (except GS-12's and below who have been specifically exempted by the Secretary), the conflict-of-interest provisions of the Act apply only to "supervisory employees."

Answer 6 (Cont'd):

If Reservists were activated as "supervisory employees", the two provisions of the Act which would probably be of most concern would be the section 602 divestiture requirements and the section 606 participation restrictions. Section 602 prohibits a "supervisory employee" from receiving compensation from, having any official relation with, or having any pecuniary interest in an energy concern. Section 606 prohibits a "supervisory employee," during his first year in the Department, from participating in certain Department proceedings involving present or former energy concern employers.

Section 602 authorizes the Secretary to waive the divestiture requirement if he finds that its application would create exceptional hardship for the employee. Section 606 authorizes the Secretary to waive the participation prohibitions if he finds such a waiver to be in the national interest. The Secretary could choose to exercise his waiver authorities to the legally permissible limit to maximize the effective use of any Reservists temporarily activated in an emergency as "supervisory employees."

It should be noted, however, that the conflict-of-interest provisions of the Act are in addition to, and not in substitution for, the conflict-of-interest provisions of the criminal code found at sections 201-209 of Title 18, United States Code. These provisions apply Government-wide to all Executive Branch employees, regular or "special", "supervisory" or nonsupervisory.

In terms of limiting the effective use of activated Reservists in an emergency, perhaps the most important provisions (and the ones of most concern to Reservists coming from private employment to serve on a temporary basis) are sections 208 and 209.

Answer 6 (Cont'd):

Section 208 prohibits personal and substantial participation by any Government employee in any particular matter in which he, his spouse, minor child, partner, or employer (among others) has a financial interest. This prohibition may be waived by the appointing official only if the interest in question is found to be "not so substantial as to be deemed likely to affect the integrity" of his services.

Section 209 imposes criminal penalties on any regular Government employee who receives any salary or supplementation of his salary from a private source as compensation for services as a Government employee. Special Government employees, on the other hand, are not prohibited by section 209 from accepting a salary from an outside source for performance of their Government duties. While the inhibiting effect of section 209 on the willingness of a Reservist to serve as a regular employee can't be measured, it is a factor that must be considered.

Question 7: The procedures report said that industry declined to participate in the Reserves during the 1973 emergency because of "official documentation and reactions by the press to the proposed action."

--What assurance exists that industry would now willingly participate in the program if they declined to do so in the 1973 energy emergency?

--Have you talked with industry about this? What did various companies have to say?

Answer: There are no guarantees that industry will fully participate in the National Defense Executive Reserve Program (NDER), although we are confident of the basic willingness of the private sector, if called upon to help respond to national emergencies. The Department of Energy (DOE) is concerned that current restrictions, notably certain aspects of the antitrust and conflict of interest laws, might diminish the ability to attract and utilize qualified executives to the National Defense Executive Reserve (NDER) Program. While these restrictions remain a key concern, good progress has been made toward revitalizing the DOE's three Executive Reserve units.

On January 26, 1983, DOE redesignated 47 former members of the NDER to new terms--including 31 in the petroleum and gas unit and 16 in the solid fuels reserve. These are the first NDER redesignations since the program was moved into the DOE in 1977. In addition, the electric power executive reserve has 47 members, reappointed in 1982 as "special Government employees serving without compensation" (WOC's). Steps are underway to appoint each electric power WOC as a member of the NDER.

Answer 7 (Cont'd):

Thus, since this Administration began the difficult task of rebuilding the Energy Executive Reserves, the active membership has grown from zero to 94 executives in the petroleum, gas, solid fuels and electric power industries.

Each of our 94 members and other possible candidates have been invited to a Government-wide conference and training session for the National Defense Executive Reserve, sponsored by the Federal Emergency Management Agency, March 7-9, 1983, in Washington, D.C. Over 100 invited executives, will participate in this important two and one-half day conference, the first of its kind since 1967.

The issues surrounding legal impediments, including potential legislative proposals, will be on the agenda at the forthcoming NDER conference. This will provide opportunity for these matters to be more fully explored with and among industry executives. Meanwhile, these issues are under examination within the DOE, but no final decisions regarding possible legislation have yet been made.

Question 8: The January 24, 1983, Federal Register stated that commenters on the Comprehensive Energy Emergency Response Procedures Report expressed "widespread concern regarding the proliferation of energy emergency regulations among the States." The procedures report, however, barely discussed the issue, stating only that in a severe emergency "the Federal Government. . . may attempt to dissuade the States from enforcing price and allocation controls."

--What actions would the Administration consider taking to "dissuade" the States from enforcing price and allocation controls?

--What authority exists to preempt State allocation and price control should the Administration find preemption necessary?

Answer: DOE has provided information to the States on the problems in attempting to implement price and allocation controls. We believe the markets, which are most efficient and effective in allocating resources during "normal" times, will also serve as the best allocator during supply disruptions, even severe disruptions. We anticipate that the States will recognize that mechanisms that did not work at the Federal level, also would not work at State and local levels.

Another part of our strategy is to work with States to develop alternative methods of responding to energy emergencies such as fuel cooperatives and public information programs.

We do not intend to intrude in State decisions concerning the State and local matters, unless there is concern that State action may impede interstate commerce. In such cases, the Department will work with the Department of Justice to prevent or remove such restrictions.

Answer 8 (Cont'd):

Any State allocation or price control program which unduly burdened interstate commerce could be invalidated on constitutional grounds.

Question 9: Does DOE believe some preemption statute is even needed in the absence of a standby price and allocation control authority? If not, why not?

Answer: No. We have no intention of unreasonably interfering with matters which are properly of State or local Governmental concern. They are in the best position to understand their own needs, capabilities, and appropriate responses to energy disruptions. A vigorous exchange of timely and accurate information between States and the Federal Government should help to avoid inconsistent approaches.

Question 10: What measures does the Administration suppose States will adopt in shortages of greater magnitude than experienced in the past?

Answer: As noted in response to question 9, States are in the best position to understand their own needs, capabilities, and appropriate responses to energy disruptions. Information sharing among States and the Federal Government can provide reliable timely data on the dimensions of a crisis and help to coordinate effective energy emergency responses. We are confident that the States will recognize the limitations and problems of the regulatory approach and support a market-oriented energy emergency preparedness program.

Question 11: What preemptive effect do the provisions in Title II of P.L. 96-102 have to head off potential conflict between Federal and State policies by assuring that State contingency plans are sympathetic to the Administration philosophy?

Answer: It is difficult to visualize a conflict between the Federal and State Conservation Plans under Title II of the Emergency Energy Conservation Act (EECA), P.L. 96-102. The Standby Federal Conservation Plan could not become effective unless the President found that a conservation target established by him in response to a severe energy supply interruption or to triggering of the International Energy Agency's emergency sharing plan was not being met. In that case, any conflicting provisions of the State Plan would be preempted.

In any event, the Administration does not favor the adoption of burdensome and intrusive measures under the EECA; thus the question of a conflict with State measures is unlikely to arise.

Question 12: What is the status of planning to alleviate the economic burden imposed by sharp petroleum product price increases during shortages in which the market is relied upon to allocate product?

Answer: As you know, the EEPA requires DOE to examine the economic impacts of energy supply disruptions and to submit a report to Congress by August 3, 1983. This report will include analysis of selected fiscal and monetary policies including those responses discussed in the "Report to Congress: Energy Emergency Comprehensive Response Procedures". An interagency group has been formed, comprised of OMB, CEA, Treasury, HHS, DOE, and Agriculture to recommend response policies for inclusion in this analysis.

Question 13: The Comprehensive Energy Emergency Response Procedures Report stated that, DOE is continuing its analysis of possible economic and financial mitigation response and/or recycling measures" in the event of a severe supply disruption. While the Report states that DOE has completed several drafts on the Administrative feasibility of a revenue recycling plan, it also says that these analyses, "in no way imply that revenue recycling is judged to be an effective mechanism for mitigating adverse economic impact during a disruption." In DOE's judgment, is revenue recycling an effective mechanism for mitigating adverse economic impacts of disruptions? Does the Administration intend to use revenue recycling in disruptions and in what circumstances will it do so? What additional authority would be needed to implement a system that would work? To what extent could (or would) recycling take place under existing law?

Answer: As noted in the response to question 12, DOE is preparing an analysis of the impacts of a supply disruption which will address a number of issues including revenue recycling. We are not prepared at this time to assess the effectiveness and feasibility of any specific economic program.

Question 14: It is my understanding that the Emergency Management Manual of the International Energy Agency provides that member countries achieve the 7% or 10% petroleum demand reductions of the IEP within 21 days of the activation of the IEA Emergency Sharing System. Does the Administration have in place on a contingent basis programs that would assure that the United States could achieve these petroleum demand restrictions reductions within 21 days?

Answer: Although statutory authorities for various demand restraint programs remain in effect, it is administration policy to rely on market mechanisms coupled with expected use of high levels of private and Government petroleum stockpiles to deal with energy emergencies. The United States is convinced that this policy will allow us to meet our IEA obligations and do it in a manner that minimizes the adverse impact on the economy and our citizens.

Reliance on market mechanisms during an emergency will accelerate conservation efforts, induce practicable fuel switching and enhance domestic oil production as millions of individuals and firms, producers and consumers alike, respond to rising oil prices.

The IEP also provides that a country may substitute drawdown of private and public petroleum stocks in excess of its emergency reserve commitment for demand restraint under the IEA emergency system. We do not believe this will be necessary, however, under our strategy of relying on our price induced conservation.

Question 15: The Administration claims in the Comprehensive Energy Emergency Response Procedures Report that private oil stocks play a major role in minimizing oil price increases in supply disruptions. However, experience tells us that oil companies tend to hold a minimal amount of emergency stocks and that stocks are built up rather than drawn down in disruptions. What assurances are there that oil companies will maintain adequate emergency stocks or draw them down in future disruptions?

Answer: There are no absolute assurances. However by removing price and allocation controls from petroleum, and by vetoing the Standby Petroleum Allocation Act of 1982, and by reaffirming its commitment to a market-based energy program, the Administration has already adopted the most significant measures possible to encourage private sector stockpiling of petroleum supplies. We do not plan to interfere with private sector decisionmaking concerning maintenance of oil inventories, and decisions to draw down such stocks at any given point in time. There is simply no basis to substitute the judgment of Government officials for the judgments of a number of private sector decisionmakers who by and large have considerably more stake in their ability to supply their respective markets, than a Government official does in his attempt to substitute his own opinion for that of private individuals who operate in the market on a daily basis.

Question 16: Despite the importance the Administration places in private stock's ability to minimize price increases in disruptions, the Comprehensive Energy Emergency Response Procedures Report does not say whether any program for assuring the adequacy of private stock levels should be initiated or whether it is studying the issue. What does the Administration intend to do, if anything, to encourage industry to maintain adequate oil stocks and draw them down in disruptions? Is there a way to encourage the holding of private stocks at a cost that is cheaper than holding crude oil in a salt dome under the Federal SPR program?

Answer: As noted in the response to question 15, the Administration has already removed the greatest disincentive to stockpiling--price and allocation controls. And we do not plan to interfere with private sector decisionmaking concerning maintenance of oil inventories.

At the present time, we are unware of any program to encourage private sector stockpiling which would be cheaper and more effective than the current SPR program. However, this is an area which is currently under study, and we anticipate seeking additional input from the public on the question of Government policies relating to inventories in the near future.

Question 17: If the private sector seems disinclined to stockpile in a quiet, stable market, what plans has the Administration for encouraging private sector stockpiling? Would the Administration invoke the Industrial Petroleum Reserve authorized under the Energy Policy and Conservation Act as a means of assuring net additions to nationwide stocks?

Answer: As noted in the responses to questions 15 and 16, the Administration has no plans to interfere with private sector judgment in managing stocks. In addition, we have no plans to implement the Industrial Petroleum Reserve.

Question 18: The GAO analysis of the procedures report states on page 13 that, according to the Acting Deputy Director of the Office of Energy Emergencies, "a firm decision has not yet been made on when--of if--a fair sharing plan should be developed. GAO, however, asserted that a fair sharing system is "crucial" to the IEA's Emergency Sharing System.

--Does the Administration intend to develop a fair sharing system? By when? What are the principal issues which must be addressed in designing such a system? What is your preference with regard to resolution of each of these issues?

Answer: The precise nature and need for a so-called "fair sharing" program is under consideration within the Department. It is not at all clear that such a program should be necessary with a market-based energy program, where market prices can adequately compensate for any costs. U. S., companies have indicated that they will participate in the IEA provided that they will not endure "losses" as a result. The companies have defined "loss" in two ways: 1) financial loss as a result of being forced to sell oil abroad at less than the market price, and, 2) a diversion of oil abroad that adversely affects their traditional domestic customers.

The IEA established in 1974 the principle that oil traded under the sharing system be based on the price of comparable commercial transactions. We have indicated to U.S. companies that we have no intention of forcing them to sell oil abroad in contradiction of this principle.

Question 19: The GAO report states that a major omission in the procedures report is whether U.S. involvement during an energy emergency in the NATO system would conflict with similar U.S. involvement in the IEA system. Because the two systems might be used simultaneously in an emergency, GAO notes that "a major communication and coordination problem might occur, adversely affecting the U.S. and overall allied contingency planning efforts."

--Is coordination in an emergency between the two systems a potential problem, and what is the Administration doing about it?

Answer: Because the objectives of NATO and the IEA are different, no specific formal mechanisms have been established to coordinate actions of these organizations during oil supply shortages. NATO's objective is to meet the Alliance's collective defense requirements in crisis or war; in brief, NATO is concerned about the West's entire oil supply scheme, a task which requires great flexibility in response to conditions prevailing at the time. On the other hand, the objective of the IEA oil sharing system is essentially to redistribute at the margin only that oil necessary to satisfy the IEA allocation formula, under which historical consumption and imports are primary determinants for access to supply. In a NATO wartime scheme, these historical patterns would become irrelevant.

Answer 19 (Cont'd):

Ordinarily, however, the NATO and IEA systems in support of emergency oil sharing are essentially compatible. NATO oil supply plans defer to the IEA sharing system and posit NATO activation only if NATO defense needs cannot be met by the IEA system. If a transition from IEA to NATO sharing is required, the transition can be accomplished on the basis of common peacetime data reporting systems now being developed and existing informal communication between the international staffs of NATO and the IEA.

Question 20: The GAO report notes that strong differences exist between the U.S. and West Germany, on one hand, and other IEA member countries on the other hand, over how oil should be priced in an emergency.

--What position is the U.S. taking? What is West Germany's position?

--Has either side altered its position, and if not, how does the Administration propose to resolve the dispute? Does U.S. policy remain committed to reallocating oil at spot price levels?

Answer: Strong differences do not exist between the U.S. and West Germany, on one hand, and other IEA members on the other hand, over how oil should be priced in an emergency.

The GAO report appears to confuse questions of pricing under the IEP with pricing in AST-4, the upcoming IEA allocation systems test. The U.S. and FRG opposed inclusion of pricing elements in AST-4 because the artificial test environment would not realistically duplicate price negotiations. However, we have agreed that a group of experts will observe the test and consider whether a future allocation system can realistically simulate price negotiations.

As for the fundamental issue of pricing in the IEP, the tone of the December 1982 meeting of the IEA Standing Group on Emergency Questions (SEQ) reflected general agreement on a market approach to pricing oil traded in an emergency. The U.S. supports the position adopted in Article 10 of the IEP which states that the price should be based on "price conditions prevailing for comparable

Answer 20 (Cont'd):

commercial transactions." The original intent of the IEP was to guarantee members access to oil at market prices. We have stated clearly that the U.S. Government will not subsidize oil to foreign consumers in an emergency.

Specific formulae have been suggested as a possible pricing guideline. These include basing the price of the IEA traded oil on spot prices, with some weight given to official sales prices so that the IEA system price does not lead the market. The USG is studying these proposals and will continue to discuss the issue with our IEA partners.

Question 21: Does the Administration intend to limit the SPR for domestic use, and if so, how does it intend to do this?

Answer: The basic purpose of the Strategic Petroleum Reserve (SPR) was described in the SPR Drawdown Plan and SPR Report, both of which were submitted to Congress by the President on December 1, 1982. In the SPR Plan (P. 4), it was noted that:

> The primary purpose of the SPR sales and distribution process will be to provide additional supplies of petroleum to domestic energy markets on a timely basis, to substitute for supplies interdicted due to a major fuel supply disruption. The SPR oil distribution process is intended primarily to supplement national petroleum supplies. This Distribution Plan describes the means by which SPR oil will be distributed into the U.S. oil supply system.

Generally speaking, the export of crude oil is restricted as a practical matter by the Export Administration Act, the regulations therein, and other laws, except where necessary to meet our obligations under the International Energy Program. Thus, the SPR Plan does not contain any additional export limitations within the Plan itself. Attached to this response is a copy of a Memorandum prepared by the DOE Office of General Counsel outlining the legal restrictions relating to the export of SPR crude oil.

Department of Energy
Washington, D.C. 20585

DEC 3 1982

Memorandum for Dave Doane
Richard Grundy
Jim Bruce

From: TN Thomas C. Newkirk
Acting Deputy General
Counsel for Regulation

Subject: Prohibitions on the Export of Strategic
Petroleum Reserve Crude Oil

This memorandum responds to your inquiry with respect to crude oil exports at yesterday's SPR distribution plan briefing.

The export of any crude oil, including oil stored in the SPR (regardless of origin), is prohibited by Department of Commerce "Short Supply Control" regulations, 15 C.F.R. Part 377, adopted pursuant to the Export Administration Act, 50 U.S.C. App. §2401 *et seq*. This is because any such export would require a license under that Act and the implementing regulations. The regulations preclude issuance of a license unless: the export is part of a transaction resulting in the importation of refined products of a quantity and quality not less than would be derived from domestic refining; the products are to be sold at prices no higher than the lowest prices at which they could have been sold by the nearest capable U.S. refinery; and for compelling economic or technological reasons beyond the exporter's control, the crude oil cannot reasonably be processed in the U.S. (§377.6(d)(1)(vii)).

There are more stringent, independent statutory tests prohibiting the export of many domestic crude oils, including Alaskan North Slope (ANS) and Naval Petroleum Reserves (NPR) oil. *See* §7(d) of the Export Administration Act of 1979, 50 U.S.C. App. §2406(d) (ANS oil) and 10 U.S.C. §7430(e) (NPR oil); *see also* 30 U.S.C. §185(u) (oil shipped across a Mineral Lands Leasing Act §28(u) right-of-way) and 43 U.S.C. §1354(a) (OCS oil).

The President has other authority to prohibit the export of Strategic Petroleum Reserve crude oil, such as his authority under the International Emergency Economic Powers Act, 50 U.S.C. §1701 et seq. However, in light of the existing broad prohibitions against export of crude oil, the exercise of these authorities would not be required to keep SPR oil from being exported.

cc: Chuck Trabandt

Question 22: Does the Administration intend to sell SPR oil in a commodities futures market and does it believe it can do so without amending the current SPR Drawdown Plan? Would the Administration place any restrictions on who can purchase futures on SPR oil? Would the Administration require that SPR oil be used in a disruption and how would it do this?

Answer: In response to the Notice of Inquiry on the EEPA reports, several commentors recommended consideration of pre-crisis futures or options market for SPR oil. DOE is currently examining this concept and intends to solicit public comments early this Spring on the merits of pre-interruption sales of options for SPR oil. No decision has been made as to whether any particular futures or options proposal is within the scope of the current SPR Drawdown Plan, or if any amendment to that Plan would be necessary.

Question 23: The U.S. General Accounting Office's recent evaluation of the Comprehensive Energy Emergency Response Procedures Report raised the question of whether the Government can ensure that SPR oil would actually be used to alleviate an oil shortage or whether it would be retained in private stockpiles. GAO points out that the SPR Drawdown Plan is vague about what happens to SPR oil after the transfer of ownership at supporting terminals takes place. It leaves unclear the terms of DOE's "standard sales agreement" or whether the agreement would ensure that oil would not be retained in private stockpiles." How does the Administration propose to assure that SPR oil would be used to alleviate a shortage rather than be stockpiled? Specifically, does the Administration intend to alter the "standard sales agreement" to alleviate this concern? Does the Administration plan to develop a coordinated stock drawdown policy for the domestic petroleum industry? What would be the elements of this policy?

Answer: The drawdown of the SPR will result in a net increase in oil supplies available to the market, and consequently place downward pressure on the market price even if private stocks in general are being increased at the time. There would be an incentive for a buildup of private inventories during a disruption only if the private sector believed that oil prices would increase by more than the market rate of interest plus transaction and storage costs. However, under a system of competitive bidding, those costs would be reflected in the prices bid--at the margin--by prospective buyers. Therefore, if oil, including SPR oil, is competitively priced, there is less of an incentive to store high levels of oil.

The Administration has no intention of interfering with the use of private stocks and believes that the marketplace will best determine the needs for oil at the time of a disruption.

Question 24: The SPR Drawdown Plan states that up to 10 percent of the volume of SPR oil can be set aside at the Secretary of Energy's discretion to alleviate hardships in a disruption. Under what circumstances would this oil be set aside? What plans has the Administration made for determining to whom it would sell this oil in a disruption? What data justifies the use of the 10 percent limit on oil available to the Secretary's discretion?

Answer: The purpose of the 10% special hardship provision is to provide a mechanism by which the Secretary could respond to exceptional situations. Since the range of possible situations which could justify resort to the use of this provision is quite broad, we have not attempted to determine what the appropriate decision might be in a particular set of circumstances. However, it is anticipated that the operation of this provision would be somewhat similiar to the operation of the exceptional hardship provision implemented in the past by the FERC with respect the natural gas curtailment situations--that is, on a case-by-case basis.

Question 25:	The SPR Drawdown Plan notes that the SPR could be used to satisfy U.S. obligations under the International Energy Program. Under what conditions and how would the SPR be used to support this U.S. commitment?
Answer:	The Energy Policy and Conservation Act permits the President to draw down the SPR in case of a severe energy supply interruption, or if necessary to meet U.S. IEP obligations, and its export to meet such obligations is statutorily excepted from U.S. export controls. However, such a decision would be made by the President on a case-by-case basis. There is no requirement under the IEP for SPR oil to be exported to meet U.S. IEP obligations. Drawdown of the SPR would reduce U.S. imports, thereby potentially resulting in import levels within the IEP supply right. SPR oil could also be sold at competitive prices, as part of a domestic "fair sharing" system to U.S. firms which supplied oil internationally to satisfy U.S. IEP obligations. These approaches are authorized under the SPR's Distribution Plan and implementing regulations.

Question 26: Current DOE-funded research shows that the effect of the SPR on world oil prices depends on other Nation's stock policies. If other Nations build stocks during disruptions, the effects of SPR drawdown will be reduced, while coordinated drawdown would greatly enhance its effects. Does the Administration intend to develop a coordinated stock drawdown policy with out allies, and if so, when will it do so?

Answer: Through the IEA, member countries have agreed to hold emergency reserves equivalent to 90 days of net imports in the prior calendar year. Most IEA countries, including the United States, hold well in excess of the 90-day import requirement. In addition the United States has made a substantial commitment to a strategic reserve of Government owned-stocks. We believe it is far more important to ensure that adequate stocks are available for use in the event of a disruption than to develop elaborate plans for coordinating the drawdown of stocks that may not be available.

Additionally, the United States and its allies already have in place an emergency oil sharing system wherein member countries are committed to take common action to deal with major oil supply interruptions (through the IEA). The IEA system does not require Governments to undertake any actual stock draw down; rather it provides for coordination of consumption among member IEA countries, and hence a general level of coordination of import and stock policies.

In situations when oil supply shortfalls of less than 7 percent occur (i.e., "subtrigger" situations), the United States does not support development of a coordinated stock drawdown policy. We firmly believe that primary

Answer 26 (Cont'd):

reliance on the market together with a high level of stocks is the best means for dealing with such a situation. We believe that informal coordination of policies, of the type which occurred during the 1980-81 Iran-Iraq war, is the most useful means, along with the market mechanism, to handle any future similar crisis.

To this end, the IEA members agreed to set up an IEA market monitoring system to provide early warning of supply difficulties and committed its membership to consult with each other on appropriate measures. Any Government action during a disruption of less than 7 percent would be dependent on the circumstances at the time rather than being predetermined by an established set of measures.

Question 27: The Comprehensive Energy Emergency Response Procedures Report stated that two legal issues that should be resolved to facilitate distribution of SPR oil include the possible need to (1) amend the Defense Production Act to facilitate transportation of SPR oil and (2) amend the Export Administration Act to allow SPR oil to be refined in Caribbean refineries. While resolving these issues is crucial to the effective distribution and use of SPR oil, a recent GAO report pointed out that the Administration had not set a timetable for proposing remedial legislation. When does the Administration intend to propose needed legislation? Do you believe that transportation of SPR oil should be assigned DPA priority?

Answer: No decision has been made whether to seek legislation on these subjects discussed in the Comprehensive Energy Emergency Response Procedures Report.

The possibility of amending the Defense Production Act to facilitate transportation of SPR oil was raised in that Report only in the context of meeting any extraordinary requirements for SPR oil transportation which might develop. We do not expect, in the ordinary course, to assign DPA priorities for movements of SPR oil. The point is that this is a gap in existing DPA coverage, and there are some circumstances in which the authority could facilitate drawdown and distribution.

Question 28: **How has the DIREX-B test been designed to address very specific concerns or "trouble spots" in the mechanics of SPR distribution that have been already identified?**

Answer: The exercise plan for the DIREX-B test has not been completed, pending the prior completion of two earlier exercises: WINTEX-CIMEX and AST-4. After these two tests, we will be in a better position to design the DIREX-B to simulate situations which will test the capabilities of the DOE to draw down the SPR. Already, during the WINTEX-Cimex test, we have identified the need for better coordination among DOE offices to provide necessary information required for development of the Notice of Sale. In addition, we are now attempting to learn more about the procedural problems which might be encountered in producing the necessary contract documents, and how the actual communications with potential bidders will be accomplished. Finally, we have already recognized the need to involve officials in the DOE at the highest levels, including the Secretary and Secretarial Officers, to familiarize them with their roles in the course of any situation requiring use of SPR.

Question 29: Many analysists have argued that the current excess oil producing capacity in the world (about 10 million b/d) means that a low priority can be accorded to U.S. energy emergency preparedness for the rest of the decade. Others argue that economic recovery and a projected sharp decline in oil productive capacity in mature oil fields in the late 1980's will result in absorbtion of this excess capacity. What level of U.S. oil imports do you project for each year between now and 1990? What level of vulnerability to oil supply interruption will exist in each of these years?

Answer: Our most recent assessments project that the current levels of excess oil production capacity in the world will probably cause oil prices to continue to decline at least in real terms (i.e., adjusted for inflation) for at least another two or three years. However, economic recovery and the stimulative effects of this price decline on oil demand could lead to the oil market tightening relative to the current situation in the latter half of the decade. In the case of the United States, this is projected to cause U.S. net oil imports to increase from an average level of 4.2 million barrels per day in 1982 to a range of 6-7 million barrels per day as we approach 1990. This of course assumes that oil prices do not rise substantially by 1990. Imports will be substantially lower if OPEC is successful in restricting production and raising prices. Import levels for 1983 and 1984 depend primarily on how fast oil prices decline and the rate of economic recovery. Although imports may be higher in the latter part of the 1980s, the SPR will be much larger, and we expect the Administration's market reliance policies to continue to provide the proper incentives for the private sector to upgrade its emergency preparedness.

The CHAIRMAN. Thank you very much, Mr. Secretary. As I read your statement, the first two or three pages indicate that we are better off relatively than we were before, and therefore that is good enough.

Secretary HODEL. Mr. Chairman, I would agree with the first part of your summary, and if I may, we are better off relatively, but preparation is an ongoing process. I would expect it to continue to get better. As we go through certain exercises that are going on now, and that are scheduled for July and August and at which we test the mechanisms we have put in place, we will get increasingly better.

The CHAIRMAN. The reason I opened that way is that I don't disagree at all that we are relatively better off than we were. Yet if I were to be an administration critic for a moment—and I hope to be a friend of the administration, not only on this matter but upon other things as well—I have to observe that everything that has happened to which you point for evidence of the fact that we are relatively better off has been in spite of the administration.

I commend you, Mr. Secretary, for having increased the buy rate for SPRO to 220,000 barrels a day as is required by law. I appreciate the fact that you are complying with the law. I recognize that economic consumption is down, because of economic conditions, and consumption of energy also is down. There have been energy conservation measures taken which have undoubtedly reduced consumption further than just the decline in the economy generally, but after having pointed to our relative improvement, only four pages later in your own statement, you observe that certainly we have more work to do in the area of energy emergency preparedness. I agree with that statement.

If the General Accounting Office is only partially right, you have a lot of work to do. The picture that emerges from the Memorandum of Law, and the analysis of it prepared by the GAO, is a mosaic of statutes with significant gaps in the authorities available to the President to cope with an oil crisis. Significant gaps exist in the very authorities you propose to rely on for the President's market-based energy emergency preparedness program.

For example, under current law your Executive Manpower Reserve is available to the President only in defense-related emergencies. Two years after expiration of Federal mandatory price and allocation controls the Department of Energy has yet to put in place the President's program. One year ago DOE representatives laid out a schedule for implementation of a market-based energy emergency preparedness program. Many other proposals have yet to materialize despite the statutory mandate of the Energy Emergency Preparedness Act.

Mr. Secretary, is there some way we can expedite this process?

Secretary HODEL. Mr. Chairman, I believe we are attempting to expedite this process. We have in place internal controls and monitoring mechanisms. We have an organization established for immediate response in the event an emergency arises. We have the long list of statutes which you mentioned and which we feel give us substantial capability, although I am aware of your concerns that there are gaps in that statutory array. I must say it is true, as you assert, that we are concerned about the ability of the Emergency

Manpower Reserve program, to function without some legislative assistance.

In attempting to comply with the requirements imposed on us with regard to emergency preparedness which were provided in the last Congress, there are some very tight deadlines, as you know. We met those deadlines and frankly, I can take no credit for that. I arrived while that process was very nearly completed with the early reports. We have an additional report, as you know, which is due to the Congress in August. It was my judgment, Mr. Chairman, that we did not have the ability to prepare and provide to Congress the proposed modifications of the statutes which we thought would be called for to carry out some of those legislative initiatives in time for this first session of this Congress. It is our target to have them ready by the fall so that they are available for submission either at the end of this session or at the beginning of the next session of Congress. During that time, we are going through, as you know a number of exercises. In fact, today the Emergency Reserve Group is meeting with us to discuss some of the problems they envision with our exercise of those emergency preparedness programs.

It is not clear the extent to which we have a legislative problem, the extent to which we must seek relief in certain provisions, and the kinds of circumstances in which we would want to ask Congress to limit the impact of other important statutes. It is a very difficult policy evaluation process that we must go through. We feel that we need to talk to the potential reservists, which is what is commencing today, to identify the problems. They clearly have their own legal counsel which will affect their decisions as to whether they can comply. In the course of these exercises, I believe we will get a much clearer picture of what needs to be done.

We are moving, in other words, but clearly I can perceive your concern that we are not moving rapidly enough. I don't have a specific answer as to how to change that rate of movement at this time.

The CHAIRMAN. I have a number of other questions, but I want to share the time that you have here with other members of the committee. For that reason I will at this time yield to Senator Warner.

Senator WARNER. Mr. Secretary, the GAO has indicated that the United States has agreements with NATO to respond to various peacetime and wartime requirements. At the same time, we have similar agreements with the IEA.

Looking over your testimony, I am concerned that there may be some conflict between these two sets of agreements.

Secretary HODEL. Senator, there is always the possibility that there could be a conflict between them, but the membership of the two organizations is substantially overlapping, and one of the things that we test in exercises is the communication capability between the ministers who meet with regard to NATO and those who meet with regard to IEA.

My belief is that while there is a potential overlap and a potential conflict, the existence of this substantial overlap of responsibility would minimize communication problems greatly. I am not particularly concerned about the overlap at this point based on my experiences.

Senator **Warner**. While we are on the subject of the world oil supply, what is your latest information with respect to the activities in London today?

Secretary **Hodel**. I have nothing more current than the morning report, Senator. My expectation has been that we would see an announcement of some understanding in principle among those participants with regard to both supply and price. I think that if our analysis is correct with regard to the amount of excess supply capacity in the market, I would be very surprised if an agreement which attempts to hold the price near thirty dollars per barrel would be able to withstand the market pressures. I think the market pressures are great enough to cause some deterioration from that level.

Senator **Warner**. Mr. Chairman, I have further questions, but like you, I will yield.

The **Chairman**. Senator Metzenbaum?

Senator **Metzenbaum**. Mr. Secretary, I share the concern with the chairman and GAO about the question of developing or being prepared for an energy emergency, but it seems to me that there is also implicit in that the need to develop our own resources of that or the energy that we have available and I don't have all of the specific figures, but Government has lost its credibility with the American people in that we are wasting energy at the moment.

There was a big story in "The New York Times" just over the weekend how every building in New York City is getting more and more illumination. People are saying what suddenly happened that a few years ago we were telling everybody turn out the lights? Now we are wasting millions of watts to illuminate buildings.

The administration has cut back funds for conservation 97 percent, although they tell me you have come back a wee bit on that.

The development of alternate energy resources which we were told was something tantamount to war, something—I forget Jimmy Carter's statement on that.

Secretary **Hodel**. The moral equivalent of war.

Senator **Metzenbaum**. Moral equivalent of war, that's right; thank you. Now the gasification plants are closed down. The liquefaction plants have closed down. The solar energy funding is cut way back. Shale oil is on the back burner across the board, and my question to you is who is providing that kind of thinking process that says that energy conservation and alternate energy resources are no longer, their development are no longer an imperative for this country? Where did that come from? Why? How?

Secretary **Hodel**. I think that that is a conclusion drawn by observers of the budget process for this administration, but it is not a valid interpretation of the current status by the Department of Energy.

I take some pride as you know, and you referenced it in your question, Senator, in the fact that we have brought up the request levels of last year that were set forth for conservation and renewable energy, as well as fossil energy.

One of the areas that I have focused on substantially since the world has grown concerned about the falling oil prices is the increasing necessity for the administration and others to take a high profile with regard to the importance of conservation. It is clear that that has been taking place in terms of real savings has been occurring in the private sector. The question is what can and what should we be doing to stimulate that?

Much of the cut in the budget in the conservation sector comes because $255 million was taken out of a $410 million program. What is suggested to be cut is the low-income weatherization program which we argue is better carried out as a part of the low-income assistance program through the Health and Human Services Department. However, we have attempted to strengthen that part of our budget which deals with research and development in conservation, from our proposal of last year. It may still be below the level that Congress would request, but I am constrained to state that I arrived on this budget train when it was about 95 percent out of the station. I have moved around the country and talked about solar and conservation. I have gone to the Solar Energy Research Institute in Colorado, and I asked the Director there to tell me what it will take to provide assurance that over the next few years SERI can become a solar national lab and assure us that the United States will not have to take a back seat in solar technology to any nation. There are other indications as well of a different thrust than what is characterized as this administration's review.

Shale has not been put on the back burner. What has happened is that shale projects with a given level of financial support from the Synfuels Corporation have proven to be either technologically or economically infeasible and have been suspended by the sponsors. The Synfuels Corporation, which is separate from DOE, as you know, has put out requests for proposals which may lead to five or six projects. In order to stimulate that development, they are willing to provide price guarantees averaging a barral for the oil. So, there has been no slackening of the intent with regard to those alternatives.

What has been happening, I am sure, is that increased availability of supply and some reduction in price has been followed by a predictable slackening of concern. I say we must find ways to offset that. I don't think the solution is to throw Federal money at it, but I think the solution is to stand up to be counted and to emphasize the continuing importance of conservation.

Senator METZENBAUM. I recollect that we had a big battle in this committee about whether the Government would have a right to go in and develop synthetic fuels itself if private industry didn't do it. Now I don't see that happening. I hear nothing positive happening about development of alternate fuel sources, and it seems to me that this President and this administration talk about spending billions of dollars for defense, an unprecedented increase, but the very defense of this Nation has to do with the availability of an adequate energy supply.

The SPRO, my understanding is that 3 months ago Senator Jackson requested you provide the Committee with a memorandum explaining how DOE's planned fiscal year 1983 fill rate of 216,000 barrels a day or thereabouts complies with the EEPA requirement to fill the SPRO at the highest possible practicable fill rate given available funds. You have available funds to fill at 350,000 barrels a day.

Where is the Memorandum of Response to Senator Jackson and do you intend to simply wait until the year is out and ignore the law? Now I think that those of us—what many of us don't understand is where this administration is coming from.

Now I am prepared to agree that you are rather new in the job, but the fact is you have had enough time to hit us with one hell of a program to decontrol the price of natural gas. You figured that one out in a short period of time since you have been here.

Now why aren't we finding from you that same kind of enthusiastic behavior to do something about conservation programs which we worked so hard on in this Committee and to do something about development for alternative energy sources?

Secretary **Hodel**. Senator, I think that I do have the same kind of enthusiasm for some of those programs, but I think it is also true that good good news travels very short distances in this town. A proposal on natural gas which I don't characterize as decontrol but which some choose to, and which is at least in the category of marginal news, it is a major issue.

My support for and enthusiasm for conservation, my requests to SERI and so forth, receive very little attention. Also what receives, I think, very little attention is what is going on in the private sector. There is significant activity going on with regard to renewables. That does not mean that we can abandon our research and development responsibility. I am not suggesting that in those areas, but what I am suggesting is it does not leave us bereft of activity in those areas.

The first part of your question related to the letter from Senator Jackson. That has been a matter of ongoing concern for me. I have been faced with two irreconcilable legal opinions as to what the response must be. I have finally concluded that I have no alternative but to send forward to Senator Jackson, and I expect to be doing that as soon as it can be accomplished today or tomorrow, a letter to this Committee providing the opinion of our general counsel on the questions that the Senator asked me, recognizing that that is the opinion of our Counsel and is not agreed to by other counsel within the Government.

Senator **Metzenbaum**. Are you saying to us that the DOE is prepared to move forward with its obligations under the EEPA but the OMB is at this point taking a different position?

Secretary **Hodel**. Counsel for the OMB takes a different position, and our opinion is that to the extent we have funds in excess of the 220,000-barrel-per-day fill rate we are required to obligate those funds, and that opinion will be forthcoming within 24 hours, if not later today.

Senator **Metzenbaum**. I thank you.

The **Chairman**. Senator Hecht?

Senator **Hecht**. Mr. Secretary, do you have any plan for the next 5 years that might be different than what has been done in the past 3 years on our energy emergency preparedness?

Secretary **Hodel**. Senator, I am ill-equipped to comment on the past 3 years except as it relates to the level of preparedness that I believe I find. If I can take as a beginning point today, or when I arrived, I think I see a desire to continue the direction and the trend that was in this administration begun to move continually toward an improved defense posture, and an improved emergency preparedness posture.

As you know, there is a considerable effort within the Administration beyond just energy to prepare this Nation against emergencies that may arise. Energy simply is a piece of that so that an across-the-board effort is going on far more extensively than I think has occurred in 20 or 30 years to try to provide emergency preparedness. Energy emergency preparedness is a special category. In that area particularly run these tests, may well prove,as I commented earlier, that one of the most important elements may well be this executive reserve manpower program. That has such great promise and has worked so well in the past when it was allowed. That I think we need to find ways to move it forward that will be acceptable to members of this Committee and Congress to permit that to happen.

Senator HECHT. What percentage of SPRO oil is now being purchased from Pan American Sources—Mexico, Venezuela?

Secretary HODEL. Of the 220,000-barrel-a-day commitment, 160,000 barrels are coming from Mexico. As to the remaining 60,000 barrels, I will have to ask Assistant Secretary Vaughan if he has that figure. Do you know?

Mr. VAUGHAN. It is not from Pan American Sources, Senator.

Senator HECHT. Thank you very much; no further questions at this time.

The CHAIRMAN. Thank you very much. Senator Ford?

Senator FORD. Mr. Chairman, I apologize for getting here late, and I am trying to catch up a little bit. Mr. Secretary, on question 8, the January 24, 1983, Federal Register stated that comments on the comprehensive energy emergency response procedures report expressed widespread concern regarding the proliferation of energy emergency regulations among the States. The procedures report discussed the issue that in a severe emergency the Federal Government may attempt to dissuade the States from enforcing price and allocation controls. Briefly going over this and having been there, I can see 50 separate little pieces of paper and all of us going in 50 separate ways if we don't have some kind of preemption.

You indicate here that you are just going to let the marketplace work. You do not intend to preempt State decisions concerning State and local matters unless there is concern that the State action may impede interstate commerce.

What if we have a State that has a refinery in it and the State decides that they want to divert? You are going to move in and take that away from that State, aren't you?

Secretary HODEL. I am receiving an encouraging nod from my Assistant Secretary that yes, that would be our intention. I think I should ask him to expand upon that nod for the record.

Senator FORD. If you can expand on a nod you might be able to sell tickets to the next game.

Mr. VAUGHAN. Senator, the reason for the nod is that if a State—take the situation you have postulated. The State has a refinery that is dealing in interstate commerce and it attempts to preempt the normal flow in interstate commerce. That is exactly the type of thing we would deal with as an intrusion upon interstate commerce.

If there are energy resources in the State that are totally inside the State, for example, a State set-aside, we would have no intention of interfering with that. In fact, if the State asks for our assistance we would assist them in establishing the set-aside and so on, but where a State attempts to bar the normal flow of interstate commerce, including oil or other energy sources, then we would expect to move, and that is the type of information we have told the States.

Senator FORD. Let's expand on your nod a little bit more then. Without preemption, don't you wind up in the courts?

Mr. VAUGHAN. If jawboning doesn't work, Senator, yes, I guess we would have to wind up in the court.

Senator FORD. You know it. Why don't you just face it in the beginning and say we have a plan and this plan is going to work in all 50 States? We don't want to wind up in the courts.You are just going to let the States do whatever they want to up to a point, and then where is the point? You don't know where the point is yet. You don't state the point; just that it interferes in interstate commerce.

Mr. VAUGHAN. And I would submit to you, Senator, that I think it would be almost impossible for us in the abstract here now to do anything but theoretically state a point. We have to deal with the situation at the time.

Senator FORD. Preempt is not abstract, Mr. Secretary.

Mr. VAUGHAN. We have not, Senator, opposed preemption, but we have not come forward asking for Federal preemption. That is the status of the subject of preemption at this time.

Senator FORD. Mr. Chairman, I'm through.

The CHAIRMAN. Thank you very much. I would like to pursue that just a little more because I think this really gets down to the heart of the problem that we find ourselves with.

You say you would preempt under some circumstances, or you would seek to, by invoking the interstate commerce clause which you admit would take legal action in the courts. You don't know at what point you would seek that. You don't know how long it would take to resolve that, but you don't intend to ask for any authority to resolve it before you get to that crisis point. Is that correct? Is that what I understood you to say, Mr. Vaughan?

Mr. VAUGHAN. We would not attempt to restrain a State unless that State in our judgment through interstate commerce was unfairly affecting its fellow States.

The CHAIRMAN. You don't know where that point might be. You can't define that in advance, but you do know that if they don't agree to your jawboning that you would then have to go to court. So we have no precrisis identification of a mechanism by which we would solve it except to say that if at some point it got too tough we would then take that State to court. Isn't that correct?

Mr. VAUGHAN. That is correct, sir.

The CHAIRMAN. And you would I suspect agree—maybe I should ask you the question more directly. Isn't that kind of litigation time consuming?

Mr. VAUGHAN. In the abstract I think so, Senator, but I think if you were in a national crisis, an emergency, it would not be time consuming.

The CHAIRMAN. So you think you can get court action instituted and resolved and court orders entered in a short period of time in the midst of a crisis, because of the presence of a crisis?

Mr. VAUGHAN. I think you could, Senator.

The CHAIRMAN. And the administration's policy upon which we are depending is the ability to get quick action in the courts?

Secretary HODEL. Mr. Chairman, if I could expand upon that from the policy standpoint, I think we have a further problem. Assuming we could frame some kind of scheme that would be satisfactory to the Congress and to the administration, preemption authority once in place, would become a very tempting tool to be used and used before there is the kind of emergency for which we would hope it would be reserved.

There is temptation when the authority exists to use it, and the temptation is always to use it earlier and earlier and earlier. What we have found in the past is that the exercise of such authorities is a total regulatory nightmare and has disserved the American people enormously.

The CHAIRMAN. Mr. Secretary, I think you touch on the thing that seems to be most troubling to me. On the top of page 2 of your statement you bring up the ghost of past devils, and you did again just now. It is as though this administration, looking at the fiasco of price controls and allocation mechanisms of the past, is absolutely paralyzed in the thought process of even thinking about doing anything about it in the future.

Secretary HODEL. Mr. Chairman, I discussed in the beginning that we all share a common concern about emergency preparedness and national defense. This administration has shown anything but a paralysis in its willingness to deal with those issues. I submit that in fact the best way for us to approach a supply disruption is not to have in place rules which invite the heavy hand of Government in a system that is so complex that it has never successfully been dealt with.

We are struggling with that problem. I am still, as you know, struggling to resolve the lawsuits and settle the problems that arose from the last time, the Government tried to allocate oil.

The CHAIRMAN. I remember when we had the bill down before the administration which the President did veto. You were not in your current position at that time. Secretary Vaughan was, and others were.

I remember the scenario that was painted to the President by some of those who were opposed to the emergency standby petroleum allocation authority that we attempted to enact. We are trying to find a way so we don't go back into that situation in the midst of a crisis. But what was the scenario raised by the opponents of that legislation? They took down the stack of controls under the previous existing law, didn't you, Mr. Vaughan?

Mr. VAUGHAN. I believe Congressman Brown produced that stack of regulations, Senator.

The CHAIRMAN. Yes, but you were there, weren't you?

Mr. VAUGHAN. Yes, sir.

The CHAIRMAN. I thought so. I wasn't. That is the reason I asked you because I thought I would find out from somebody who was there.

And, as a matter of fact, it was that specter of what had happened before that haunted you then and paralyzed your ability to look at some intermediate means. And now you intend then to rely upon some response by Government after a crisis breaks out.

You have indicated, if I understand you, Mr. Vaughan, that you don't intend to invoke the interstate commerce clause with respect to supplies that are produced and marketed within one State.

Mr. VAUGHAN. I don't think we successfully could or should, Senator.

The CHAIRMAN. And that means that the producer States like Texas, Louisiana, and Oklahoma, would have all that they could use, and that other States like Idaho, Virginia and Nevada, and perhaps Kentucky, would just go short?

Mr. VAUGHAN. I don't think that is what I said, Senator. If I understood your question correctly and can comment, you indicated production for consumption within the State.

The CHAIRMAN. First of all, I don't agree with your analysis of what the interstate commerce clause says or the limitation of your authority, but it is an interesting answer because it shows a frame of mind, and it is that frame of mind that we are struggling with.

Secretary HODEL. Mr. Chairman, I probably should know better than to inject myself into this between you and Mr. Vaughan, but——

Senator FORD. Then don't.

Secretary HODEL. That's probably the best advice I'll receive today, Senator. However, I feel that I need to comment about a couple of aspects.

The CHAIRMAN. Yes, sir.

Secretary HODEL. Clearly the kind of situation you have postulated is one in which the State definitely would be having an impact upon the supply of energy in interstate commerce. But I am reminded of the problems we have suffered in the Pacific Northwest when we had a water shortage, which reduced the available hydropowers. We lacked regional authority and lacked Federal preemption but electricity knowing no State boundaries. As you well know from your personal experience there, we found it possible for the States in that area to reach essential agreement on the major features of a conservation program that contained both mandatory and monitored on the one hand and nonmandatory or requested provisions on the other.

I think it worked very effectively. The extremely beneficial part of it was we did not have a problem with the flexibility of the program when it was no longer needed. It terminated almost forthwith upon the elimination of the shortage. We have great difficulty doing that with these mandated programs, and frankly we would have difficulty terminating if we had to go to an interstate commerce clause suit. But the threat of that suit, I think, provides a substantial amount of opportunity for us to affect the conduct of those States.

The CHAIRMAN. Mr. Secretary, you have indicated that you are involved now in a search for the legislation which may be required to allow you to do what you say you would intend to do in the event of a crisis. And I certainly agree with Secretary Vaughan's answer a moment ago that it is impossible to tell right now exactly what a trigger might be because of the infinite variety of circumstances which we might have to respond to. So your search for authority that exists in current statutes must apply to a variety of situations, marginal as well as obvious.

And you have indicated that you believe, and if I state this wrong, please correct me, that you expect that some legislation would be necessary. You would have that identified and to us by late this fall or for the next session of the Congress. Am I correct?

Secretary HODEL. That is correct.

The CHAIRMAN. Which is a way of saying that between now and then you will lack some authority which you may need in some kind of circumstances; is that correct?

Secretary HODEL. That could be true.

The CHAIRMAN. And that is precisely what this committee and the Congress has been trying to tell you for several years. Now why can't we get on with it instead of waiting? What does it take for us to work cooperatively to get to the point where we do have that kind of legislation on the books?

This administration—not you, Mr. Secretary—told us last year and, confidently, right up until this moment, that no more legislative authority was necessary. I am heartened by your statement this morning that perhaps some might. That is the first break in that Chinese wall. I am grateful for that break because it does indicate the beginnings of wisdom.

Senator FORD. Mr. Chairman——

The CHAIRMAN. Can I yield to Senator Warner?

Senator WARNER. I want to ask one or two questions here.

Senator FORD. Sorry.

Senator WARNER. I don't mind yielding to my colleague.

Senator FORD. No. I'm fine.

Senator WARNER. Is this follow-on because I am going to switch to a different subject?

Senator FORD. I want to follow on just one for a second. I would like to ask the chairman, he was here when we got into the NGPA, if nothing else, under the Natural Gas Pricing Act, we found the producing States were intrastate oriented. All the industry was going to those States and we couldn't get anything into interstate. What I see that is being proposed here is that State regulation of a free market, and it bothers me considerably. Most of the departments have a scenario of the legal position that they are in, and I don't think they pointed out where you can get a quick legal fix of the problems that are there.

The CHAIRMAN. Of course the Senator is correct. The historical reference to what we have seen before indicates to me that indeed that Bonneville scenario doesn't apply across the board. This is a different industry, a more complex industry, a larger area and a more complex set of problems to deal with. I do know what happened in the Bonneville instance, and I agree that voluntary restraints did work for that marginal supply in one form of energy in a regulatory utility setting.

I don't think it will work that well based upon the experience we have had over the last 10 years in the nationwide setting of the complex distribution of the various parts of the petroleum supply, refining, and distribution.

Senator Warner?

Senator **Warner**. Thank you, Mr. Chairman.

Senator **Ford**. Thank you, John.

Senator **Warner**. I have a few questions for Mr. McCormack, the Assistant Secretary of State for Economic Affairs.

Mr. McCormack, reports have it the administration will be coming forward shortly seeking from the Congress such legislation as may be needed for greater participation in the IMF, particularly added appropriations. Am I correct?

Mr. **McCormack**. I'm sorry. I didn't hear your question, Senator.

Senator **Warner**. I understand the administration will be coming forward shortly seeking legislation from the Congress such that this country can have a participation in the IMF efforts to stabilize and stem certain loans to the LDC's.

Are you familiar with that?

Mr. **McCormack**. Yes, I am, Senator. That is correct.

Senator **Warner**. Have I stated generally what the legislation will seek or the administration will seek from the Congress as to the form of legislation?

Mr. **McCormack**. That is correct. We are to increase the general quota.

Senator **Warner**. Would you speak up a little?

Mr. **McCormack**. That is correct, Senator. You are correct.

Senator **Warner**. Now two of those countries, the beneficiaries would be Mexico and Venezuela?

Mr. **McCormack**. That is correct.

Senator **Warner**. To what extent are those countries participating right now in the OPEC negotiations in London?

Mr. **McCormack**. Venezuela is of course a member of OPEC and therefore participating fully in any OPEC meetings. Mexico is present in London as an observer. Therefore, its participation in the London discussions is at most informal.

Senator **Warner**. Now the question that I have got to answer tonight in a forum is as follows: A vote to support this additional IMF loan authority is a vote to keep up prices of gas at the pump. How would you answer that question?

Mr. **McCormack**. Could you repeat your question, Senator?

Senator **Warner**. A vote in support of additional funding for IMF, of the United States, indirectly enables prices at the gas pump to be stabilized and to be kept up?

Mr. **McCormack**. I don't draw that connection, Senator. They are two completely separate issues.

Senator **Warner**. All right. Would you explain that?

Mr. **McCormack**. In general, particularly with regard to Mexico, we felt that we simply could not afford to let the Mexican situation drift and to permit the general financial system to disintegrate. We moved over the course of the last several months to take various steps to stabilize that situation, and we have done so.

We have a potentially longer term situation that we also have to be concerned about.

Senator WARNER. I understand that. As a matter of fact, the chairman and I were involved in some meetings at the time in connection with SPRO and the various contracts. I recognize that there is a need to stabilize the economy in Mexico. Many of our exports depend on that market, but I come back to the question if they don't have additional IMF support they might be forced to go into the world market and lower their oil prices. Would that be correct?

Mr. McCORMACK. That would be correct.

Senator WARNER. And if they were to do that, that would start a further spiraling down of the world oil prices and the cost to the United States for imported petroleum, is that correct?

Mr. McCORMACK. That would be correct.

Senator WARNER. Wouldn't that result in a lower price at the gas pump?

Mr. McCORMACK. It would be.

Senator WARNER. Therefore, back to the question—a vote for IMF could indirectly stabilize world oil prices and as such keep the price up at the American gas pump?

Mr. McCORMACK. Again, Senator, you have a long-term and a short-term situation. In the short term, you are right. In the long term, excessively lower prices would result in less investment in new sources. There would be less drilling. There would be less exploration, and supplies would dwindle and deteriorate eventually, and then the pressure would be upward again.

Senator WARNER. So for a period of time it is likely that we would experience lower prices at the gas pump?

Mr. McCORMACK. That is correct.

Senator WARNER. Thank you.

The CHAIRMAN. Mr. Secretary, I know that you are scheduled to appear on the other side of the Capitol, and I want to give you plenty of time to get there and arrive without being breathless. I wouldn't want Chairman Udall to misunderstand the reason for the breathlessness.

We will submit other questions for the record, but before doing that, Mr. Secretary, I am troubled by one aspect of the testimony that you presented today because I perceive it as the same thing we have had for a year—simply two ships passing in the dark without any communication at all between the two: the administration saying we saw what happened before and that was a horrible mess and we don't want to touch that again, and the Congress saying we saw what happened before and that was a horrible mess and we don't want that to happen again. And we are talking about two different messes.

The administration is talking about the regulatory mess, and we are talking about the mess of supply in which there were people who suffered. We can point to the regulatory mess that did occur. Yes, indeed, it did, but we are not both pointing back to the same thing. The administration seems to me in all of its testimony and responses to be pointing back to one thing.

Did anybody notice that the Congress, in the last act that was passed, said rely upon the marketplace to the extent possible, which I think is what you are saying?

Instead, your response has been, you can't do it that way again, but we are not talking about doing it that way again. We are saying that at some point supply interruption gets to the point where simple market mechanisms break down and that at some point in the midst of that crisis Congress is going to act.

I made a reference a moment ago to the States and those members who happened to be present last time. I did that to illustrate a point. There are a 100 men and women in the Senate of the United States and 435 in the House of Representatives who are confronted in the midst of a crisis with demands that they do something to get supplies to people who are going without.

Now I know that there is something wrong with people staying in Congress too long, but occasionally it is because we remember what happened the last time we went through this. We react differently than people who are new to the administration who weren't here during the last crisis. I heard the telephones ringing off my wall from farmers out in Idaho who didn't have enough fuel to get their crops into the ground in the spring of 1974.

Senator FORD. Amen.

The CHAIRMAN. And that could be repeated in every one of the States in which a farmer plants any crops. I heard from others who had fishing fleets that couldn't get their fishing boats out of the harbor because they didn't have fuel. We responded to those multiple demands by passing legislation that created the mess to which you now respond negatively.

All I can suggest to you is that just sit where you are and say the market will take care of it, do nothing until the crisis occurs again and you will see again a congressional response that will create another nightmare.

What I am suggesting is that this administration, dedicated as it is to the free-market principles, protect that market against that event by creating as flexible a response mechanism as is possible to create before you get into that situation because this Congress will act, and no President is going to be able to veto legislation that comes out of this Congress because it will pass by an overriding majority in both Houses of the Congress in the presence of that crisis.

There is a better way to do business than simply to erect a wall against understanding, and that is what I am afraid I have seen. A wall has been built up that says no, we are not going to touch this. I think you must touch it, and I am encouraged by your recognition to date, Mr. Secretary, that the GAO report isn't totally wrong, that there are some holes in your legal authority, that you can't or that you are not sure you can do what is said might be done and that you may have to come back here with legislation to correct some of those deficiencies in existing statute.

I could go on in detail here this morning why you don't do what you have set out to do, why there are uncertainties, but I think Secretary Vaughan's responses in themselves have highlighted the improbability of being able to cope with just the State preemption question simply by going to court in the midst of an emergency.

We have been there before, Mr. Secretary. We hope you are not suggesting we return. I would be pleased to have your response if you would care to respond.

Secretary **Hodel**. Mr. Chairman, I listened carefully to what you said, and I take it to heart. It does seem to me that we exploring what kind of legislative authorities we need, if any, through these tests that are going on now, and it could be very constructive could be to remain in close communication with you and your committee staff as we identify problems. Perhaps we can work toward a proposal which will accommodate the concerns that you have expressed and those that you have heard expressed by the administration in the last 2 years.

That may not be possible, but it would be my desire to try to move in that direction because I hear what you say, and I know what your concern is. I have had, as I have said, experience with energy shortages, and I am aware of the public response that occurs at that time. One of the things that we need to deal with somehow I think is that when there is an energy emergency, a society needs to distinguish between its desires for energy and its need for energy. How we make that determination is what we are talking about.

The desire and the need cannot both be met in a shortage unless we have some kind of allocation mechanism. The allocation mechanism we have been opting for is maximum reliance upon the market. I hear your concerns. I understand them. The experiences that we as well as foreign nations have had in the past in attempting to utilize government allocation authorities have been uniformly unsatisfactory. In going through these tests against the background of the amount of supply we now have in the strategic petroleum reserve, we hope we will begin to get some ideas about how to accomplish those minimum things which you feel must be done and yet still maintain that flexibility which you recognize as a concern of the administration.

I hope to work with you on it.

The **Chairman**. Mr. Secretary, I appreciate the statement because I don't mean to be inflexible. I don't think this committee does, and neither does the Congress as a whole. Certainly we are not all of one mind up here, but I think there is a general consensus which can be found that can accommodate to the administration's views as well as those of us in the Congress. At some point there needs to be some mechanism that at least is ready to be utilized other than simply allowing the market to allocate supply.

There are not enough dollars in the world to allocate all of the petroleum when there is a shortage. The very wealthy, the very financially strong, the ones in the most efficient economic markets, will get all of the supply while none will go to the end of the pipeline, regardless of the number of dollars you could eventually get to the end of the pipeline to induce supply to flow there. You will have to be involved in a massive Government exercise to redistribute economic strength in order to induce this supply. There would be a time lag between the time that the need was identified, the mechanisms were created, the dollars were distributed, and the time asked for supply, by being willing to pay. But the situation is not an orderly situation where market mechanisms work perfectly nor well. They are chaotic circumstances, and chaotic circumstances may not always have been created by the Congress. But while Congress seldom makes them better, Congress will attempt to act in that circumstance. All I am suggesting is that if the administration really doesn't like what happened last time, they better look at what they are going to do next time before they get there. And I haven't yet seen that look, other than to say we will rely on the market, and that, Mr. Secretary, won't wash.

Thank you very much for your testimony this morning.

Secretary **HODEL**. Thank you, Mr. Chairman.

The **CHAIRMAN**. Mr. McCormack, if you will wait, we haven't yet heard your testimony. If the others wish to leave, that's fine.

Mr. Shanks, I wonder if you could wait a moment? We may have a question of you. I understand you don't have a prepared statement?

Mr. **SHANKS**. That is correct, Mr. Chairman.

The **CHAIRMAN**. Mr. Richard McCormack, Assistant Secretary of State for Economic and Business Affairs; Mr. McCormack, we have your prepared statement which you may make a part of the record or you may deliver, or summarize it, whatever you wish.

Senator **FORD**. Mr. Chairman, are all these going over to the House hearing?

The **CHAIRMAN**. Mr. Shanks, are you going to the House hearing?

Mr. **SHANKS**. No, Mr. Chairman, I am not.

The **CHAIRMAN**. Mr. McCormack?

Mr. **MCCORMACK**. Mr. Chairman, before I proceed with my comments here I would like to ask your indulgence on one matter. Your colleague from Virginia asked me a question which was one I wasn't expecting and it was one that deserves a more thoughtful and detailed response than the one I gave him, and with your permission, I would like to respond with a written analysis of the issues that he has raised for the record.

The **CHAIRMAN**. Yes. You may do so.

Senator **FORD**. Mr. Chairman, he would like to have that I think before dark.

Mr. **MCCORMACK**. I would be delighted to take care of that.

[The material referred to follows:]

DEPARTMENT OF STATE
Washington, D.C. 20520

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ENERGY AND NATURAL RESOURCES
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MAR 7 1983

Dear Mr. Chairman:

During the hearing of the Committee on Energy and Natural Resources this morning, Assistant Secretary McCormack was asked to comment on the impact of the proposed IMF Quota Increase on gasoline prices. Mr. McCormack requested the opportunity to provide written comments supplementing his answer during the hearing. In addition, I am submitting a clarification of a comment made by Mr. McCormack with respect to the length which petroleum reserves would last. I am pleased to enclose copies of our written comments.

With cordial regards,

Sincerely,

Powell A. Moore

Powell A. Moore
Assistant Secretary
for Congressional Relations

Enclosure

The Honorable
James A. McClure, Chairman,
Committee on Energy and Natural Resources,
United States Senate.

IMF Quotas and International Oil Prices

Q. I understand that the Administration intends to seek approval for an increase in IMF quotas to help hard-pressed countries such as Mexico and Venezuela. These countries are currently working hard to prevent a reduction in world oil prices. Given that the United States would benefit from a reduction in world oil prices, is it in the U.S. interest to subsidize countries that are working to keep them high?

A. There would be little if any connection between the proposed increase in IMF resources and the international oil market. World oil prices are a function of supply and demand. The fact that the IMF has been providing financial assistance to Mexico has not in any way reduced pressures for reductions in world oil prices.

Our interests in augmenting IMF resources relate to the health of the international financial system, and our efforts to promote economic recovery, U.S. jobs and domestic financial stability. We are convinced that increased IMF resources will yield a net gain to the U.S. and global economies.

CLARIFICATION OF RESPONSE TO SENATOR HECHT

Q: How many days of protection from an oil supply interruption does the Strategic Petroleum Reserve provide us currently?

A: In 1982, U.S. oil consumption was about 15.2 million barrels per day and net imports were about 4.1 million barrels per day. With the SPR now holding 305 million barrels of crude, it provides us about 20 days of protection in terms of total consumption, and 74 days in terms of imports.

STATEMENT OF RICHARD T. McCORMACK, ASSISTANT SECRETARY OF STATE FOR ECONOMIC AND BUSINESS AFFAIRS, DEPARTMENT OF STATE; ACCOMPANIED BY E. ALLAN WENDT, DEPUTY ASSISTANT SECRETARY FOR INTERNATIONAL ENERGY POLICY; ROBERT B. SHANKS, DEPUTY ASSISTANT ATTORNEY GENERAL, OFFICE OF LEGAL COUNSEL, DEPARTMENT OF JUSTICE; AND BARBARA PRICE, ATTORNEY ADVISOR, OFFICE OF LEGAL COUNSEL, DEPARTMENT OF JUSTICE

Mr. McCORMACK. Secretary Hodel covered most of the issues that were in my prepared statement, so I simply will submit that for the record and summarize briefly the major points.

I would also like to introduce Allan Wendt, the Deputy Assistant Secretary for Energy at the Department of State who is our expert on these matters.

The central theme of our international efforts to bolster U.S. emergency preparedness is cooperation with other energy importing countries and strengthening collective preparedness and avoidance of fundamentally disruptive competitive response to supply interruption. The primary forum we have established for such cooperation is the International Energy Agency.

The Reagan administration has reviewed the International Energy Agency's oil crisis response system and has concluded that cooperative participation in IEA is in the U.S. interest. It is true that the focus of our effort in the IEA is somewhat different from that of previous administrations. As you know, Mr. Chairman, we are strongly committed to reliance on the market mechanism as opposed to Government-imposed palliatives to restore equilibrium to the energy markets following a supply interruption.

We believe detailed allocation and price controls intensify rather than reduce the dislocation caused by disruption. One of our primary objectives in the IEA is to win greater acceptance of this principle, and as a consuming country, we believe we are making progress in this direction. More and more of our IEA partners are interested in deregulating oil prices also. We are also making headway in convincing our IEA partners that pricing of oil under the IEA energy sharing system must be commercially viable. We could not justify asking U.S. oil companies to sell oil to foreign countries at a price below that which they are charging consumers here in the United States.

Beyond deregulation, we believe that the maintenance of large oil reserves by all importing countries is the only effective means of forestalling panic buying and reducing dislocation caused by a sudden reduction in vital oil supplies. We have, therefore, tripled the size of the strategic petroleum reserve which now holds in excess of 300 million barrels, and we are pressing our IEA partners to increase their reserves, too.

International coordination of stock drawdowns will also be very important. There has always been an expectation that an IEA member countries would cooperate with one another regarding stock drawdowns in an emergency. As of tomorrow, we expect to agree in the IEA on a formal survey of IEA member countries' policies regarding drawdown of Government-owned and controlled stockpiles. We anticipate that such exchange of information will make a valuable contribution to our ability to cope with oil supply crises.

The General Accounting Office has raised a few other technical questions about U.S. participation in the IEA. I will not elaborate on these now except to note I have discussed them in my written statement, and I believe we have demonstrated they do not constitute major problems for U.S. energy crisis preparedness.

In sum, Mr. Chairman, we are continuing to strengthen our energy security through cooperation with other countries in the IEA. We have not solved all the problems, but we are working together on those we have not solved, and among sovereign nations that in itself is a significant accomplishment.

I would make just one final comment. In your introductory remarks, Mr. Chairman, you noted that in 1979 and 1980 the comparatively small supply disruption in supply resulted in an enormous increase in price. Part of this was caused by panic buying. Part of it was caused by other problems.

My genuine strong sense is that we must do better in any future crisis of this nature. What precisely we would do in such circumstances has yet to be worked out, but we simply cannot allow this experience to be repeated.

[The prepared statement of Mr. McCormack follows:]

STATEMENT OF RICHARD T. MCCORMACK, ASSISTANT SECRETARY OF STATE FOR ECONOMIC AND BUSINESS AFFAIRS, DEPARTMENT OF STATE

ON BEHALF OF THE DEPARTMENT OF STATE, IT IS A PLEASURE TO APPEAR BEFORE YOUR COMMITTEE TODAY TO DISCUSS U.S. POLICY RELATING TO ENERGY EMERGENCY PREPAREDNESS. SECRETARY HODEL HAS ALREADY PROVIDED YOU AN OVERVIEW OF OUR EMERGENCY PLANNING. I WILL BRIEFLY DISCUSS THAT PART OF ENERGY EMERGENCY PLANNING THAT FALLS INTO THE FOREIGN POLICY AREA, I.E., COOPERATION WITH OTHER ENERGY IMPORTING NATIONS TO MITIGATE THE EFFECTS OF ENERGY CRISES. I WILL ATTEMPT TO ADDRESS EACH OF THE ISSUES IN THIS AREA RAISED BY THE GENERAL ACCOUNTING OFFICE IN ITS RECENT COMMENTARIES ON EMERGENCY PREPAREDNESS (RATHER THAN PROVIDE SEPARATE WRITTEN ANSWERS TO THE GAO'S QUESTIONS).

OVERVIEW

AS YOU KNOW, MR. CHAIRMAN, THE ADMINISTRATION'S OIL CRISIS RESPONSE STRATEGY CALLS FOR FULL RELIANCE ON THE EFFICIENT ADJUSTMENT MECHANISMS OFFERED BY A FREE, COMPETITIVE MARKET, SUPPLEMENTED BY THE MAINTENANCE OF EMERGENCY OIL STOCKS IN THE STRATEGIC PETROLEUM RESERVE, AND BY COOPERATION WITH OTHER CONSUMING COUNTRIES IN THE INTERNATIONAL ENERGY AGENCY AND THE NORTH ATLANTIC TREATY ORGANIZATION CRISIS RESPONSE SYSTEMS. WE BELIEVE THAT STRONG AND SUSTAINED COOPERATION WITH OTHER MAJOR CONSUMING COUNTRIES THROUGH THE IEA WILL HELP TO REDUCE PANIC AND ECONOMIC DISLOCATION AND TO ASSURE THAT INDIVIDUAL COUNTRIES DO NOT SUFFER UNACCEPTABLE ECONOMIC HARM AS A RESULT OF A SHORTFALL IN OIL SUPPLIES. CREDIBLE COOPERATION WILL ALSO HELP DETER POLITICALLY MOTIVATED SUPPLY INTERRUPTIONS BY EXPORTING COUNTRIES.

MR. CHAIRMAN, I GATHER THAT YOU DO NOT INTEND THIS HEARING TO BECOME A FORUM FOR A GENERAL DEBATE OF U.S. INTERNATIONAL ENERGY POLICY, AND THEREFORE WILL FOCUS THE REMAINDER OF MY REMARKS ON THE DETAILED ISSUES RAISED BY THE GAO. I DO WANT TO AFFIRM, HOWEVER, OUR CONFIDENCE THAT THE UNITED STATES IS FULLY EQUIPPED TO FULFILL ITS OBLIGATIONS UNDER THE IEA EMERGENCY SYSTEM SHOULD IT BE ACTIVATED.

THE GAO RAISED QUESTIONS ABOUT SEVEN ISSUES IN THE AREA OF U.S. INTERNATIONAL EMERGENCY PREPAREDNESS AND PLANNING:

-- PARTICIPATION BY U.S. COMPANIES IN THE IEA OIL CRISIS RESPONSE SYSTEM, INCLUDING THE ISSUE OF "FAIR SHARING";

-- PROCEDURES FOR COMMUNICATION AND COOPERATION BETWEEN THE U.S. GOVERNMENT AND IEA EMERGENCY SYSTEM AUTHORITIES IN A CRISIS;

-- U.S. INTENTIONS WITH REGARD TO DEMAND RESTRAINT AS PROVIDED FOR IN THE IEA EMERGENCY SYSTEM;

-- PRICING OF OIL TO BE ALLOCATED AMONG IEA MEMBER COUNTRIES IF THE IEA SYSTEM IS ACTIVATED;

-- INTERFACE BETWEEN THE IEA AND NATO OIL ALLOCATION SYSTEMS;

-- USE OF THE SPR TO FULFILL U.S. OBLIGATIONS UNDER THE IEA EMERGENCY SYSTEM;

-- COORDINATION OF OIL STOCK DRAWDOWN PLANNING WITH OTHER CONSUMING COUNTRIES.

I WOULD LIKE TO DISCUSS EACH OF THESE BRIEFLY.

PARTICIPATION BY U.S. COMPANIES IN THE IEA OIL CRISIS RESPONSE SYSTEM

THE GAO EXPRESSES CONCERN ON TWO POINTS RELATED TO U.S. COMPANY PARTICIPATION IN THE IEA. FIRST, IT POINTS OUT THAT THE EXECUTIVE BRANCH HAS NOT YET COMPLETED A NEW PLAN OF ACTION TO IMPROVE THE BASIS FOR COMPANY PARTICIPATION IN THE IEA. THIS IS TRUE. HOWEVER, IT IS IMPORTANT TO NOTE THAT THERE IS A PLAN OF ACTION CURRENTLY IN PLACE AND HENCE THAT THERE IS A FIRM LEGAL BASIS FOR COMPANY PARTICIPATION IN THE IEA PENDING COMPLETION OF A NEW PLAN. THE EXISTING PLAN OF ACTION IS NOT AS COMPREHENSIVE IN ITS DETAIL AS WE OR THE COMPANIES WOULD LIKE AND IT IS FOR THAT REASON THAT WE HAVE BEEN WORKING ON A NEW ONE. THE LEGAL ISSUES INVOLVED, HOWEVER, ARE COMPLEX. DOE PUBLISHED FOR PUBLIC COMMENT A DRAFT OF A NEW PLAN OF ACTION IN MAY 1981. THE RESPONSE WAS QUITE HEAVY, AND DOE, ALONG WITH THE DEPARTMENT OF JUSTICE AND THE FEDERAL TRADE COMMISSION, HAS SPENT MUCH TIME SINCE THEN ON THIS PROJECT. WE ARE NOW HOPING TO USE THE MAY-JUNE IEA ALLOCATION SYSTEM TEST TO EXAMINE SOME OF THE ISSUES INVOLVED. IN SHORT, WE BELIEVE THAT THE DELAY IN COMPLETING THE NEW PLAN OF ACTION IS JUSTIFIED.

THE SECOND ITEM OF CONCERN TO THE GAO REGARDING COMPANY PARTICIPATION IN THE IEA IS THE DEVELOPMENT OF A SO-CALLED "FAIR-SHARING" PROGRAM. THE FAIR-SHARING ISSUE HAS BEEN A SOURCE OF CONFUSION TO MANY PEOPLE AND I THINK IT MIGHT BE USEFUL TO EXPLAIN IT BRIEFLY. AT THE TIME THE IEA ALLOCATION SYSTEM WAS BEING DEVELOPED, A CENTRAL ISSUE WAS

HOW MEMBER GOVERNMENTS WOULD ASSURE THE AVAILABILITY OF OIL SUPPLIES WHICH THEY MIGHT BE REQUIRED TO SHARE WITH OTHERS IN THE EVENT OF A SERIOUS CRISIS. THERE WERE TWO OBVIOUS OPTIONS: EITHER THEY COULD DIRECT OIL COMPANIES TO MOVE OIL TO THE REQUIRED DESTINATIONS, OR THEY COULD SEEK THE VOLUNTARY COOPERATION OF THE COMPANIES IN DECIDING HOW BEST TO MOVE OIL TO THOSE COUNTRIES MOST SERIOUSLY AFFECTED BY THE OIL CRISIS. RECOGNIZING THAT INEXPERIENCED GOVERNMENT BUREAUCRATS WOULD MAKE VERY POOR ALLOCATORS, THE DRAFTERS OF THE IEA CHARTER READILY AGREED THAT THEY WOULD PURSUE THE LATTER OPTION.

THE ONE PROBLEM ASSOCIATED WITH THIS APPROACH IS THAT, IN ORDER TO SECURE VOLUNTARY COOPERATION BY COMPANIES, IT IS NECESSARY TO ASSURE THEM THAT THEY WILL NOT SUFFER COMPETITIVE DISADVANTAGE. AT THE TIME THE IEA WAS CREATED, THE COMPANIES INDICATED THAT THEY WOULD NOT BE ABLE TO VOLUNTEER OIL SUPPLIES TO THE IEA SYSTEM UNLESS THEY WERE ASSURED THAT THE BURDEN WOULD BE SHARED WITH THEIR DOMESTIC COMPETITORS IN A FAIR MANNER, HENCE, THE TERM "FAIR-SHARING". THE SOLUTION AT THE TIME WAS TO GIVE CREDIT FOR SUCH VOLUNTARY OFFERS UNDER THE BROADER DOMESTIC CRUDE OIL ALLOCATION SYSTEM THEN IN PLACE.

WHEN THE ADMINISTRATION ABOLISHED THE U.S. DOMESTIC CRUDE OIL ALLOCATION SYSTEM AND PRICE CONTROLS, WE FOUND OURSELVES FORCED TO CONSIDER ALTERNATIVE MEANS FOR ACHIEVING "FAIR-SHARING". THE DEPARTMENT OF ENERGY UNDERTOOK IN JULY

1981 TO DEVELOP A CONTINGENCY "FAIR-SHARING" SYSTEM TO BACKSTOP VOLUNTARY OFFERS, POSSIBLY INCLUDING USE OF AN SPR DRAWDOWN, FOR USE SHOULD THE PRESIDENT DEEM IT NECESSARY IN ORDER TO MEET U.S. OBLIGATIONS UNDER THE IEA ALLOCATION SYSTEM. WE UNDERSTAND THAT DOE IS NOW PREPARING A REPORT ON THIS SUBJECT. I WOULD NOTE, HOWEVER, THAT SUCH A PROGRAM MAY NOT BE REQUIRED TO ELICIT VOLUNTARY OFFERS FROM COMPANIES IN TODAY'S DEREGULATED ENVIRONMENT.

PROCEDURES FOR COMMUNICATION AND COOPERATION BETWEEN THE U.S. GOVERNMENT AND IEA EMERGENCY SYSTEM AUTHORITIES IN A CRISIS

THE GAO EXPRESSES CONCERN ABOUT PROBLEMS OF COMMUNICATION AND COORDINATION BETWEEN THE U.S. GOVERNMENT AND IEA AUTHORITIES REVEALED DURING THE 1980 TEST OF THE IEA ALLOCATION SYSTEM. WE HAVE MADE SUBSTANTIAL EFFORT TO RECTIFY THIS PROBLEM OVER THE PAST TWO YEARS. THE DOE PERSONNEL WHO WILL BE WORKING WITH THE IEA IN THE EVENT THE IEA SYSTEM IS ACTIVATED ARE TODAY MUCH BETTER ACQUAINTED WITH THE DYNAMICS OF THE IEA SYSTEM AND WITH IEA OFFICIALS THAN THEY WERE THEN. WE ARE OPTIMISTIC THAT THE MAY-JUNE TEST OF THE ALLOCATION SYSTEM WILL DEMONSTRATE THAT THIS PROBLEM HAS BEEN SOLVED.

U.S. DEMAND RESTRAINT EFFORTS UNDER THE IEA EMERGENCY SYSTEM.

THE GAO EXPRESSES RESERVATIONS ABOUT THE ABILITY OF THE UNITED STATES, THROUGH RELIANCE ON MARKET MECHANISMS, TO REDUCE DEMAND IN A CRISIS TO THE EXTENT AND IN THE TIMEFRAME ENVISIONED UNDER THE IEA EMERGENCY SYSTEM.

IN OUR VIEW, RELIANCE ON MARKET MECHANISMS OFFERS THE ONLY REALLY CONSTRUCTIVE MEANS OF ACHIEVING DEMAND RESTRAINT. OF COURSE, WE ARE CONSCIOUS OF THE ECONOMIC DISLOCATION THAT SUDDEN DISRUPTION OF SUPPLY OF A CRITICAL COMMODITY SUCH AS OIL CAN CAUSE. WE ARE THEREFORE COMMITTED TO DEVELOPMENT OF THE STRATEGIC PETROLEUM RESERVE AND ARE ALSO ENCOURAGING OUR IEA PARTNERS TO INCREASE THEIR PETROLEUM STOCKPILES. ARBITRARY REGULATORY CONTROLS ON CONSUMPTION WOULD SIMPLY INTENSIFY THE ECONOMIC DISLOCATION CAUSED BY A SUPPLY INTERRUPTION AND RESTRICT INDIVIDUAL FREEDOM OF ACTION. ONLY THE AVAILABILITY OF ALTERNATIVE SUPPLIES CAN SUBSTANTIALLY REDUCE THE HARM OF A SUDDEN LOSS OF CRITICAL RESOURCES.

THIS APPROACH IS CONSISTENT WITH THE REQUIREMENTS OF THE IEA EMERGENCY SYSTEM. DRAWDOWN OF OIL STOCKS HELD IN EXCESS OF THE 90-DAYS-OF-IMPORTS IEA STANDARD IS RECOGNIZED BY THE SYSTEM AS A LEGITIMATE SUBSTITUTE FOR DEMAND RESTRAINT.

PRICING OF OIL UNDER THE IEA ALLOCATION SYSTEM

THE GAO SUGGESTS THAT THE VIABILITY OF THE IEA EMERGENCY SYSTEM REMAINS IN JEOPARDY DUE TO THE CONTINUING DISAGREEMENT OF IEA COUNTRIES OVER STANDARDS FOR PRICING OF OIL TO BE TRADED UNDER THE IEA ALLOCATION SYSTEM. WE AGREE THAT THIS IS AN IMPORTANT QUESTION AND HAVE LONG BEEN PRESSING OUR IEA PARTNERS TO MAKE AN EARNEST ATTEMPT TO RESOLVE IT.

I AM PLEASED TO REPORT THAT, AT OUR BEHEST, THE IEA STANDING GROUP ON EMERGENCY QUESTIONS FORMALLY INITIATED

WORK ON THE PRICING ISSUE IN DECEMBER AND WE EXPECT STEADY PROGRESS ON IT OVER THE COURSE OF THIS YEAR.

FOR THE INFORMATION OF YOUR COMMITTEE, MR. CHAIRMAN, LET ME TAKE A MOMENT TO EXPLAIN THE U.S. POSITION ON PRICING. THE IEA CHARTER CALLS FOR PRICING OF ALLOCATED OIL BASED ON "COMPARABLE MARKET TRANSACTIONS." HOWEVER, FOR REASONS WHICH ARE NOT CLEAR TO US EIGHT YEARS LATER, THE IEA GOVERNING BOARD AT ONE OF ITS FIRST MEETINGS IN 1975 ADOPTED AN INTERPRETIVE STATEMENT WHICH INCLUDES THE PROVISION THAT "TERM AND NOT SPOT PRICES SHOULD BE USED." SUCH A STANDARD IS CLEARLY NOT VIABLE. OIL COMPANIES CERTAINLY WILL NOT BE WILLING TO VOLUNTEER OIL FOR ALLOCATION IF THEY ARE NOT ASSURED A FAIR MARKET PRICE FOR IT. MOREOVER, MR. CHAIRMAN, I HAZARD THE GUESS THAT YOU AND YOUR FELLOW SENATORS WOULD NOT TAKE KINDLY TO SALES OF OIL BY U.S. COMPANIES TO FOREIGN CONSUMERS IN A SUPPLY CRISIS AT PRICES BELOW WHAT THEY ARE CHARGING YOUR CONSITUENTS FOR OIL HERE IN THE UNITED STATES. WE HAVE BEEN TRYING TO DRIVE THIS SIMPLE POINT HOME IN THE IEA FOR A LONG TIME. I THINK WE ARE NOW FINALLY MAKING HEADWAY.

INTERFACE BETWEEN THE IEA AND NATO OIL ALLOCATION SYSTEMS

THE GAO EXPRESSES DOUBT THAT THE ADMINISTRATION HAS DEVOTED SUFFICIENT ATTENTION TO THE POSSIBILITY THAT THE UNITED STATES MIGHT ENCOUNTER CONFLICTING OBLIGATIONS WERE THE IEA AND NATO ALLOCATION SYSTEMS TO BE ACTIVATED SIMULTANEOUSLY. WE DO NOT VIEW THIS AS A SERIOUS RISK. THE IEA

EMERGENCY SYSTEM IS DESIGNED TO REDUCE HARM TO MEMBER COUNTRY ECONOMIES IN THE EVENT OF OIL SUPPLY INTERRUPTION. THE NATO SYSTEM, ON THE OTHER HAND, HAS THE RESPONSIBILITY OF ASSURING THE AVAILABILILTY OF OIL WITHIN THE ALLIANCE TO MEET COLLECTIVE DEFENSE REQUIREMENTS IN TIME OF CRISIS OR WAR.

THE IEA SYSTEM WOULD OPERATE ON THE MARGINS OF A MORE OR LESS NORMALLY FUNCTIONING WORLD ECONOMY. THE NATO SYSTEM WOULD BE ACTIVATED ONLY AT A TIME WHEN A THREAT TO ALLIED SECURITY BECAME SO SERIOUS AS TO REQUIRE SUBORDINATION OF ECONOMIC "BUSINESS AS USUAL" TO MOBILIZATION OF ALLIED MILITARY FORCES. HENCE, WE WOULD EXPECT THE IEA SYSTEM TO BE DEACTIVATED AT THE POINT THE NATO SYSTEM WAS ACTIVATED. ON THE OTHER HAND, ONGOING DESIGN OF THE NATO SYSTEM IS AIMED AT MAINTAINING MAXIMUM FLEXIBILITY AND MAXIMUM COMPATIBILITY WITH THE IEA SYSTEM, SO THAT WE WOULD HAVE THE OPTION OF MELDING THE TWO SYSTEMS TOGETHER IN SOME WAY IF A PARTICULAR CRISIS SO WARRANTED.

USE OF THE SPR TO FULFILL U.S. OBLIGATIONS UNDER THE IEA EMERGENCY SYSTEM.

THE GAO CRITICIZES THE ADMINISTRATION FOR HAVING FAILED TO ELUCIDATE FULLY THE MANNER IN WHICH SPR OIL MIGHT BE USED TO ASSIST IN FULFILLING U.S. OBLIGATIONS IN THE IEA. AS WITH OTHER ASPECTS OF SPR DRAWDOWN, WE CANNOT ANSWER THIS QUESTION DEFINITIVELY. HOWEVER, WE SEE TWO WAYS IN WHICH SPR DRAWDOWN MIGHT ASSIST IN MEETING U.S. OBLIGATIONS

TO THE IEA. FIRST, DRAWDOWN OF THE SPR WILL SUPPLEMENT SUPPLY AND THUS MAY REDUCE U.S. IMPORTS, THEREBY ALSO REDUCING THE SIZE OF ANY ALLOCATION OBLIGATION INCURRED BY THE UNITED STATES. SECOND, SPR OIL COULD BE SOLD TO U.S. COMPANIES IN COMPENSATION FOR OIL WHICH THEY HAD DIVERTED TO OTHER COUNTRIES IN FULFILLMENT OF A U.S. ALLOCATION OBLIGATION.

IN IDENTIFYING THIS LATTER OPTION, I DO NOT WISH TO LEAVE THE IMPRESSION THAT WE ARE COMMITTED TO IT. THERE IS EVERY REASON TO EXPECT THE UNITED STATES TO BE ABLE TO MEET ANY OIL SHARING OBLIGATIONS UNDER THE IEA WITHOUT RECOURSE TO ITS EMERGENCY OIL STOCKS. THERE IS NO REQUIREMENT THAT THE UNITED STATES SUPPLY OIL DIRECTLY OR INDIRECTLY TO ITS IEA PARTNERS OUT OF ITS EMERGENCY STOCKPILES. FINALLY, THERE WOULD BE PROBLEMS WE WOULD HAVE TO CONSIDER CAREFULLY BEFORE DOING SO.

OUR INTENT IN MENTIONING USE OF SPR OIL FOR THIS PURPOSE IS MERELY TO REFLECT THAT SUCH USE IS PROVIDED FOR IN THE SECTIONS OF THE ENERGY POLICY AND CONSERVATION ACT DEALING WITH SPR DRAWDOWN, AND TO ALLOW FOR THE POSSIBILITY THAT PARTICULAR CIRCUMSTANCES MIGHT JUSTIFY SUCH USE.

COORDINATION OF STOCK DRAWDOWN PLANNING WITH OTHER CONSUMING COUNTRIES

THE GAO NOTES THE ALLUSION IN THE PRESIDENT'S SPR DRAWDOWN REPORT TO THE BENEFITS OF INTERNATIONAL COORDINATION OF STOCK DRAWDOWN IN AN EMERGENCY, AND EXPRESSES SUPPORT FOR SUCH COORDINATION. THIS IS NOT A NEW IDEA. THERE HAS

ALWAYS BEEN A STRONG EXPECTATION IN THE IEA THAT MEMBER COUNTRIES WOULD CONSULT WITH ONE ANOTHER REGARDING THEIR STOCK MANAGEMENT STRATEGIES, AND OVER THE YEARS THERE HAS BEEN A GREAT DEAL OF INFORMAL CONSULTATION ON THIS SUBJECT. COINCIDENTALLY, THE CHAIRMAN OF THE IEA STANDING GROUP ON EMERGENCY QUESTIONS HAS JUST PROPOSED THAT THE GROUP UNDERTAKE A FORMAL SURVEY OF MEMBER COUNTRIES' PLANS FOR DRAWING DOWN THEIR GOVERNMENT-OWNED OR CONTROLLED OIL STOCKPILES. WE EXPECT THE GROUP, WHICH MEETS TOMORROW, TO APPROVE THIS PROPOSAL. SUCH EXCHANGE OF INFORMATION AND CONSULTATION WILL BE HELPFUL TO OUR SPR PLANNERS AND MANAGERS, AND COULD MAKE A VALUABLE CONTRIBUTION TO THE COLLECTIVE ABILITY OF IEA COUNTRIES TO DEAL WITH A MAJOR OIL SUPPLY CRISIS.

CONCLUSION

I HAVE RESPONDED TO EACH OF THE POINTS RAISED BY THE GAO IN RESPECT OF INTERNATIONAL ENERGY POLICY GENERALLY AND OF THE IEA IN PARTICULAR. WHILE WE DO NOT PRETEND TO HAVE ALL OF THE ANSWERS, WE DO, I BELIEVE, HAVE A COHERENT, WELL-REASONED APPROACH TO INTERNATIONAL ENERGY POLICY CAPABLE OF DEFENDING U.S. NATIONAL INTERESTS. I WOULD BE PLEASED TO RESPOND TO YOUR QUESTIONS.

The CHAIRMAN. Thank you very much. Mr. Secretary, would you agree that the President may not have clear authority to implement a domestic sharing system to meet its IEA obligations?

Mr. MCCORMACK. I believe we currently have the authority we need to take care of this problem in a general sense. Allan Wendt may care to comment in more detail on this matter.

The CHAIRMAN. I might preface that by saying some oil industry lawyers question whether the President has clear authority to implement that program and that provisions of the SPR drawdown plan may preclude use of most of the SPR oil to meet those obligations under the IEA. I think we need to be clear about whether there is legal authority to do what people say they plan to do.

Mr. Wendt?

Mr. WENDT. Mr. Chairman, I believe that the Department of Justice considers that we do have the authority to implement a fair sharing system. There is, as I understand it, a question as to how this authority should be implemented. The Department of Energy is preparing a report on this subject.

The CHAIRMAN. Would the requirement in the SPR drawdown plan for competitive sales of SPR oil preclude the use of SPR oil to meet IEA obligations?

Mr. WENDT. No; it would not, Mr. Chairman. We do have legal authority to use the SPR to meet IEA obligations.

The CHAIRMAN. Even though the drawdown plan now calls for competitive sale? How does competitive sale fit with IEA requirements?

Mr. WENDT. I think that, even though the accepted method of disposing of oil from the SPR would call for competitive bidding in the event that the emergency mechanism were triggered in the IEA, the President does have the authority to use oil from the SPR to meet that obligation.

The CHAIRMAN. He has the authority, but the drawdown plan nullifies that authority because the only use of SPR would be through competitive bidding which is directly opposite to the requirements of the IEA. Is that not correct?

Mr. WENDT. Well, in meeting our demand restraint obligation, for example, which is one of the obligations in the IEA, we could meet that obligation by drawing down private or Government-held oil stocks, and even competitive sales from the SPR, therefore, would meet that obligation.

The CHAIRMAN. If they were coupled with other actions?

Mr. WENDT. I'm sorry. What other actions?

The CHAIRMAN. The competitive sale itself does not necessarily get oil to the places required by IEA sharing.

Mr. WENDT. No; it doesn't, Mr. Chairman, but on the other hand, in terms of the demand restraint obligation, it would suffice.

The CHAIRMAN. But that is only one——

Mr. WENDT. Of several obligations.

The CHAIRMAN. But that isn't all of our obligations under IEA.

Mr. WENDT. That is correct, Mr. Chairman.

The CHAIRMAN. And it wouldn't satisfy the rest of our obligations under IEA?

Mr. WENDT. Presumably, and we would have to check this and could get back to you to put it on the record, it would not precisely meet an obligation to supply oil produced domestically to a foreign country, but we foresee that as an almost inconceivable response to any obligation we face in the IEA.

As you know, Mr. Chairman, we would rather look to the diversion of ships at sea for example, if the United States ever had to supply oil to other countries as part of an allocation obligation under the IEA emergency system.

The CHAIRMAN. Assuming that the Department of Justice believes that there is a sufficient authority, what happens if the oil companies don't believe there is sufficient authority?

Mr. WENDT. Well, the oil companies in that instance would have to challenge the authority of the Department of Justice in a court. We believe that we have the authority.

The CHAIRMAN. All right, but if there is doubt in their mind as to the ambiguity of that authority, then it is likely to end up in court, isn't it?

Mr. WENDT. If the oil companies feel so strongly about it that they would wish to pursue it in the courts, I believe that is correct, Mr. Chairman, but someone from the Department of Justice might be able to give——

The CHAIRMAN. I assume you have read the GAO report?

Mr. WENDT. Yes, sir, I have.

The CHAIRMAN. The GAO says I think in their report that the oil companies, they have indicated that they doubt that authority and they would not conform to the actions taken under it. Is that correct?

Mr. WENDT. That is what is in the report, but I would rather defer to the Department of Justice to discuss the legalities of the issue.

The CHAIRMAN. In your testimony it is suggested that SPR oil could be sold to U.S. companies in compensation for oil which they had diverted to other countries for fulfillment of the U.S. allocation obligation. You made reference to that in the discussion just now as well.

How would you propose to accomplish this in an administrative sense?

Mr. WENDT. Mr. Chairman, this again is a question of exactly how the SPR would be used in the event of a drawdown. As Secretary Hodel explained in his testimony, there is not a precise plan as to the manner in which the SPR would be drawn down.

As you noted yourself, Mr. Chairman, sales would be by competitive bidding. I believe, however, it is part of the administration's plan to provide for a 10 percent set-aside, sale of which the President would have authority to direct in the event it became necessary to provide specific amounts of oil to agreed end users.

The CHAIRMAN. I am not asking what your specific response might be. I am asking what the administrative mechanism would be because I don't believe you can tell me what the specific response would be unless you know what the specific crisis is. We ought to be able to identify the administrative mechanism which would be used.

Mr. WENDT. For actual drawdowns?

The CHAIRMAN. Simply to use SPR as substitution for domestic supplies that otherwise would be made, that under the other provisions would be made available to meet our IEA obligations.

I am not talking about just domestic production. You have mentioned the diversion of tankers on the high seas. Somebody owns some oil that is coming into this country or they have a contract for its delivery, and instead of it being delivered here it is diverted to Japan or to Europe under the IEA plans, and in substitution for that they can buy oil from SPR? It is competitive bidding. They have got to be the highest bidder in order to be able to buy it, but let's bypass that problem for just a moment and assume that the person whose oil is diverted is successful in buying SPR oil.

Administratively, how do you accomplish what it is? Who is going to do the work of getting this job done?

Mr. WENDT. Mr. Chairman, I wish that Secretary Vaughan hadn't gone off to the other hearing. I think he might be able to help us on this. I can't give you a precise answer.

The CHAIRMAN. Neither could Mr. Vaughan.

Senator FORD. I was getting ready to say no backup there.

Mr. WENDT. I don't think that administrative procedures have actually been drawn up at this point that I could describe here so as to answer your question. We will have to look into it further and get an answer for you, Mr. Chairman. I will consult with the Department of Energy to that end.

The CHAIRMAN. Well, I hope you have better luck than we have had. We have been consulting with them and asking those questions for 2 years.

[The information follows:]

Amendment No. 4 to the Strategic Petroleum Reserve Drawdown Plan, submitted to Congress December 1, 1982, defines the general principles the Administration will follow in drawing down the SPR in a crisis. The Department of Energy is now reviewing existing regulations and administrative requirements relating to the SPR drawdown contracting process in order to bring them into conformity with the amended drawdown plan. We expect that this work will proceed expeditiously.

Mr. WENDT. We know we have the authority to use the SPRO in that manner, but as for the precise administrative procedures that would enable us to fulfill a commitment of that sort, if the obligation were actually exercised by the President, I can't answer with precision today.

The CHAIRMAN. Senator Hecht?

Senator HECHT. To Mr. McCormack, please—you mentioned that you have tripled our supply of 300 million barrels. In the worst possible emergency, how long would this supply take care of America's needs?

Mr. MCCORMACK. About 21 days, terms of total U.S. consumption.

[Subsequent to the hearing, Mr. McCormack supplied the following:]

CLARIFICATION OF RESPONSE TO SENATOR HECHT

Question. How many days of protection from an oil supply interruption does the Strategic Petroleum Reserve provide us currently?

Answer. In 1982, U.S. oil consumption was about 15.2 million barrels per day and net imports were about 4.1 million barrels per day. With the SPR now holding 305 million barrels of crude, it provides us about 20 days of protection in terms of total consumption, and 74 days in terms of imports.

Senator HECHT. Twenty-one days; now what plan does Japan and our European allies have, contingency plan, under the worst scenario?

Mr. MCCORMACK. Each nation has consulted in an attempt to establish plans to lower their demand in a variety of ways in the event of a cutoff or a crisis.

Senator HECHT. What type of supply do they have in reserve?

Mr. MCCORMACK. I don't know precisely the extent of the Japanese reserves, but perhaps Allan Wendt can be helpful in this.

Mr. WENDT. I think, Senator, most of the countries in the IEA have stocks that enable them to cover more than 90 days of imports. That is prescribed in the IEA, and I am certain that Japan is one of them. I think that we can get exact figures on these stocks for you in a few minutes.

I am just informed by one of my colleagues that they have stocks for about 100 days of imports.

Senator HECHT. How about Germany, France, England?

Mr. WENDT. We could supply all of the figures for the record if you wish, Mr. Chairman, or we could get them right now if you would like to know the precise figure for each country. They are all in excess of 90 days, although I should note here that France is not a member of the International Energy Agency. They have a comparable obligation within the European Community, however.

Senator HECHT. Thank you very much. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Ford? I might remind both Senators that the Department of Justice is here, too, if you wish to address any of your questions there.

Senator FORD. We seem to be in the position that the Chairman has articulated so well that you really don't know what you would do.

The Department of Justice is here. Let me ask this question to the Department of Justice. Can we get a quick fix in case the States get out of hand?

Mr. SHANKS. Senator, you are asking about the preemption question?

Senator FORD. Yes; or any of the other questions; where there is assumed authority and there is an objection to that authority and the remedy for that is the courts, can you get a quick fix of any of it, whether it is preemption or whether it is the refinery question or what?

Mr. SHANKS. Senator, I think if there is a question of preemption, I think you always have to get to the courts, and in the context of an emergency I think that the courts are likely to act fairly quickly, but we conclude in our "Memorandum of Law" that in an energy crisis there probably would be preemption authority under the existing statutes.

The CHAIRMAN. Would that be in the event only of general war powers under that kind of a national crisis?

Mr. SHANKS. It would be a situation, Mr. Chairman, of direct conflict between the statutes which we discussed in the memorandum and State programs.

The CHAIRMAN. But if it were less than that kind of an international conflict, would you have clear and unambiguous authority?

Mr. SHANKS. I believe so, sir.

Senator FORD. Where?

Mr. SHANKS. If I may, let me introduce Barbara Price who is an attorney advisor from our office who is on my right. She worked with Mr. Olsen in preparing the "Memorandum of Law" and is intimately familiar with its contents.

Senator FORD. Which page now is that on so I can follow you?

Ms. PRICE. Certainly, Senator; if you would turn to page 70 of our memorandum, we have a discussion there generally of the subject of preemption. As we note in the introduction to that section, it is unfortunately something that we have to handle on a case-by-case basis if we got into an emergency, but we conclude that in an emergency if the President were to exercise some of his specific authorities, for instance, under the Defense Production Act or under the Energy Policy and Conservation Act, and if a State statute or regulatory program directly conflicted with those orders or regulations, that there would clearly be grounds for Federal preemption, and I think that is a question that the courts could consider very expeditiously.

The CHAIRMAN. What is the trigger in the Defense Production Act?

Ms. PRICE. There is no specific trigger. It would be the general principle of Federal preemption of a State section which is inconsistent——

The CHAIRMAN. The President has to have some authority to use the Defense Production Act. What is that authority? He can't just use it any time he wants?

Ms. PRICE. No. I am assuming that he is using, for instance, the authority in section 101 (a) or (c) of the Defense Production Act to allocate contracts or supplies or materials.

The CHAIRMAN. Under what circumstances does he have the authority to use that? He couldn't just order it today and decide that General Motors ought to have more steel than Chrysler?

Ms. PRICE. No, Senator. I can address you to our discussion in the memorandum of the circumstances under which section 101 of the DPA could be used.

The CHAIRMAN. That is what I was asking.

Ms. PRICE. Certainly, if you will bear with me a moment. Starting at page 22 of the memorandum, we discuss the situation in which section 101 (a) and (c) could be used, and those situations are fairly clearly laid out in the statute; 101(a) can only be used if the President deems that allocation or priority for performance of contracts is, quote, necessary or appropriate for the national defense, and he can only use authority to allocate materials in the general civilian market if he makes other very specific findings under section 101(b) with respect to the effect of the shortage on the civilian market. It is laid out, I think, in considerable detail through to page 31 of our memorandum.

The **Chairman**. Could the President have used that authority in 1979 when the spot price of oil was going up but supplies were still adequate in the U.S. market to meet most needs?

Ms. **Price**. Well, the exercise of his authority is contingent on a finding that the shortage will affect the national defense.

The **Chairman**. You are repeating the words to me. I am asking for an opinion as to what the words mean.

Ms. **Price**. I'm afraid that is an opinion I can't give because we were not or I was certainly not consulted at the time. I don't know all the facts, and certainly it is our position that if the President had made that finding, his finding would be accorded great deference by the courts, and certainly there is basis in the declaration of policy in the DPA to allow the President to find energy shortages do affect the national defense.

The **Chairman**. Excuse me, Senator Ford. I didn't mean to interrupt.

Senator **Ford**. I need all the help I can get. Let me say this lovingly. I turned around to an attorney one time and said which way should we go, and he said go either way, and we'll make a damn good case.

You all weren't told go this way and make a good case? Is this your honest, straightforward opinion as to how you feel about the power of the President, with the exception of a triggering mechanism?

Ms. **Price**. Yes, sir. We were told to go analyze the President's legal authority and that is what we did.

Senator **Ford**. Good. That's fine. Now let me ask you this. In your opinion, do you think the States have the ability for, say, a set-aside program? Could that be preempted? Could the states get in the posture of price controls that permitted passthrough of costs but limit the profits to a reasonable point? Would a State still have that ability?

Ms. **Price**. I don't want to try to weasel out of this question, Senator, but that is something you really can't answer in the abstract. Under some circumstances, yes; under other circumstances, no, and it is something that would have to be considered on its merits, and certainly the Department of Energy is looking at those sort of problems all the time. The Litigating Divisions of our department are looking at those sorts of problems.

Senator **Ford**. Define the word "abstract" for me. We have gone into deregulation at this point in time, and we, now we are into abstract. Since about 9:30 we have been abstracting here. Tell this country boy what abstract means in legal terms.

Ms. **Price**. It means we don't have a particular set of facts before us, Senator.

Senator **Ford**. All right. We have to pass legislation painted with a broad brush. We have to try to make it fair to you and to me and everybody else. It's hard for us to do that. We have to take a hypothetical, you know, and you depend on facts. We can't give you a fact. We don't know that it will ever happen. We hope that it doesn't, but we have to make a decision. Now if we had an embargo like in 1973, 1974—I was moving trucks all around the State of Kentucky trying to keep the schools warm. We worked it out, but

8,000 gallons here, 4,000 gallons there, 40,000 gallons there. It was tough, but we made it work.

Now when we have an embargo, does the President have the ability to give us a national emergency situation? I mean can he move in and give us the ability, does he have the ability under the law under an embargo to say this is our program, this is the way we are going to do it? We preempt the States?

Ms. PRICE. All I can say, Senator, is that he has the authority to do what the existing statutes tell him he can do. I can't really give you a much more satisfactory answer than that. I wish I could.

The CHAIRMAN. I might supplement that.

Senator FORD. Which means, then, Mr. Chairman, we are in a court, aren't we?

Ms. PRICE. Well, we would hope to be able to work with the States far short of that, and I think the Department of Energy has programs.

Senator FORD. That's without law, though. You don't have to have law to work with the State as long as you have reasonable people trying to put something together. You don't need law. You have producing States and consumer States. We watched one State have 200,000 people unemployed because of natural gas shortage. Other States had an abundance of natural gas, and they want to keep it unto themselves because of business reasons, and we understand that. But we tried to get it out into the interstate pipeline, so if we have a severe winter, would anyone be out of work, we would have sufficient supply. With reasonable people we don't need the law, but at some point we have to have the authority to do it, and people understand that.

I am not a lawyer, and I look at it maybe somewhat different than the lawyers do, and I don't apologize for not being a lawyer. I apologize for not understanding better, but it leaves me in a very difficult position, Mr. Chairman, when I see no ability for a quick fix in law. I think each one is going to take their remedy as far as they can under the circumstances, and having gone through it, it bothers me some.

I appreciate your candid approach today. You are just saying that this is your opinion, and it stands when the court supports it.

Ms. PRICE. That's it, Senator; yes.

Senator FORD. Fine. Thank you, Mr. Chairman.

The CHAIRMAN. I believe we have found at an earlier hearing on this subject that the Justice Department had advised in the 1973 embargo situation that the Defense Production Act was not broad enough to carry forward the authorities that were necessary for the allocation of petroleum supplies at that time. There were certain actions that were proposed to be carried on at that time, but because there was no antitrust protection for the companies that were involved it just never happened.

My recollection of that memorandum may not be sufficiently precise, but I think that that is where it broke down in 1973–74, so do you wish to respond?

Mr. SHANKS. Mr. Chairman, I am not familiar with the breakdown that you are referring to or with the memorandum. I will just have to say that I am not really familiar with it.

The CHAIRMAN. Well, if my memory of that situation is correct, then the shortage that occurred in 1973-74 was not sufficiently great to provide unambiguous authority for the President to use to cope with that shortage. That is the kind of thing that we are concerned about. If as a matter of fact that wasn't enough, what is enough? And I understand the answer that you have given. You can't give an answer precisely because it is abstract, but we can point to some specific situations and say if it wasn't sufficient, then what do we need to be sufficient, to respond to precisely the same situation in the future if one ever should occur that is precisely the same?

Mr. SHANKS. I understand your concern, Mr. Chairman. I wish we could give you a more precise answer.

Senator FORD. Mr. Chairman, before you proceed further, in the Government responses to the oil supply disruptions hearings before the Committee on Energy and Natural Resources, 97th Congress, first session, dated July 28 and 30 of 1981, the pages start like 292 of that hearing report, and we had I think options one and option two before the Cabinet Council discussion. Your Cabinet Council discussion favored option one, and option one notes that if any measures for allocation were undertaken, agriculture should have top priority.

Energy and Justice specifically recommended option 2, and if you read option two which was Energy and Justice, then you get into a little bit different posture than you are today. It would be anticipated that the authority would not be used except in situations far more severe than we have so far experienced.

This authority would allow the President to direct supplies to meet the direct needs of farmers, police services, et cetera, in the event that such supplies were unavailable in the marketplace, and Justice has concluded that that there will not be sufficient authorities to duplicate the comprehensive price controls and allocation authority available under EPAA. There is the debate as to whether remaining authorities could provide the best response for any future crisis, so you I think have some papers in conflict. I may not be right.

Ms. PRICE. Senator, if I may respond, I think it is true and this is the position of the Department of Justice, and I don't know anyone who would quarrel that the President's existing authorities do not give him every iota of authority that he had under the Emergency Petroleum Allocation Act. That was a very wide-reaching and broad act, and the position of the administration is that that sort of authority is not necessary now to deal with an energy emergency.

Senator FORD. It said it would not directly meet the problems of users who were unable to afford supplies due to higher prices caused by disruption, and as part of option 1 Justice has concluded that there will not be sufficient authorities to duplicate the comprehensive price controls and allocation authority. There is debate as to whether remaining authority—it just says what we are saying. The President ought to have the authority, whether he uses it or not, and you are saying from the Justice Department's memo which is stated here that he doesn't have the authority under existing law. He has enough authority to do what he wants to do, but not enough authority to really have a comprehensive program, and then we are going to let the marketplace work and we get into SPRO and how we intermingle that, whether we are able to push a little of this oil out over here for IEA and another some more oil here at the highest bidder. We are getting to the point where I think we could get into a very tangled web, and I would like even if we are wrong, I would like to have a direct route to go rather than try to play games.

We start playing games in a severe crisis, particularly with your energy sources, it gets to be very difficult.

Let me ask you this. Does Justice or does the President have the ability to move electricity around under this authority?

Ms. PRICE. There are provisions in the Federal Power Act that allow the Federal Energy Regulatory Commission to direct, for instance, interconnection of facilities or wheeling services in some circumstances, and we mentioned those in the memorandum.

Senator FORD. So you are stating then that FERC has the authority, not the President? The President could direct FERC?

Ms. PRICE. FERC is an independent agency.

Senator FORD. The President couldn't tell FERC to do that? FERC would have to do that on its own?

Ms. PRICE. Right.

Senator FORD. What would trigger FERC to do that?

Ms. PRICE. A number of things; it could be applications from utilities wanting to receive the power. There could be rulemaking proceedings instituted by affected parties—any number of routes to get FERC to focus on the problem.

Senator FORD. Would that be a quick fix?

Ms. PRICE. It depends on how desperate the emergency was. FERC can move quickly if it has to. It has the authority, for instance, to order temporary interconnections.

Senator FORD. I wish he would start now. You are very competent. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. This committee has received a memorandum from the U.S. General Accounting Office dated March 4 with their comments on the documents prepared by the administration under the Energy Emergency Preparedness Act, and one of those documents was a legal memorandum. I'm sure you haven't had a chance to analyze that as yet.

Would you provide for the record your analysis or response to that report of the GAO?

Mr. SHANKS. Mr. Chairman, if you are referring to the GA0 analysis of the memorandum of law, we have not yet received it, and we have not had an opportunity to review it.

We would be glad to give you our comments if you would like in writing subsequent to this hearing.

The CHAIRMAN. All right. If you would do so, I would appreciate that.

Mr. SHANKS. We would be glad to.

The CHAIRMAN. In your memorandum of law you did make reference to the Defense Production Act. That has been mentioned here today; the Energy Emergency Conservation Act, and the Export Administration Act of 1979—now all three of these statutes will expire within the next year. They will either have to be extended or they lapse.

I believe that the Banking Committee have had their hearings and they are now involved in the markup of the Export Administration Act of 1979.

Has the administration been asked to testify with respect to the authority that might be utilized under that law with respect to oil emergencies?

Mr. SHANKS. Mr. Chairman, I don't know. Perhaps the Department of Energy would know.

The CHAIRMAN. Would you find out for us, please, and if so, provide us with a copy of testimony as it bears on the issues before this committee in responding to energy emergencies?

Mr. SHANKS. Yes, Mr. Chairman; I would be glad to.

The CHAIRMAN. Senator Hecht?

Senator HECHT. No.

The CHAIRMAN. I want to thank you all for your testimony this morning. We appreciate your response.

[Subsequent to the hearing Mr. Shanks supplied the following:]

U.S. Department of Justice
Office of Legal Counsel

Office of the
Deputy Assistant Attorney General

Washington, D.C. 20530

30 MAR 1983

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
APR 4 1983
WASHINGTON, D.C. 20510

Honorable James A. McClure
Chairman, Committee on Energy
and Natural Resources
United States Senate
Washington, D. C. 20510

Dear Mr. Chairman:

At the Committee's March 7, 1983 oversight hearing on the implementation of the Energy Emergency Preparedness Act, several issues were raised with respect to which additional information was requested for the hearing record. I am pleased to provide you with the following supplement to the oral responses Ms. Price and I gave during the hearing.

1973 - 1974 Arab Oil Embargo

You inquired whether the Department of Justice reviewed the Defense Production Act during the 1973-74 Arab oil embargo, specifically, if the Department evaluated whether the circumstances present in 1973-74 were such that the provisions of the Defense Production Act could have been invoked. Thus far, we have been unable to locate any formal statement of the Department on this matter. However, if the Committee can supply us with any additional information, we will be glad to make further inquiries.

Cabinet Council/Memorandum of Law

Senator Ford inquired whether there was an inconsistency between the Memorandum of Law submitted by the President pursuant to the Emergency Preparedness Act and previous statements of the Department of Justice. Senator Ford was apparently referring either to minutes of a Cabinet Council meeting or to summaries of the positions on specific issues of particular agencies prepared in 1981, while the Administration was reviewing the extent of emergency authority which should be recommended to the Congress. The Department raised many issues and offered comments on policy matters during this deliberative process which preceded the determination of the Administration's position. However, that process was conducted for different purposes, and was distinct from our responsibility under § 3 of the Energy Emergency Preparedness Act of 1982, which required the Attorney General to prepare and submit to the President a memorandum of law describing the nature and extent of the Executive's authority to deal with various kinds of oil crises. The Memorandum of Law was prepared and completed consistent with this responsibility.

Export Administration Act

You also inquired whether the Administration has testified concerning the emergency authorities set forth in the Export Administration Act, which is presently undergoing congressional hearings pending reauthorization. While members of the Administration, including representatives of the Department of Justice, have testified concerning the Export Administration Act during the 98th Congress, we are aware of no testimony concerning the emergency authorities in this act.

GAO Report

Because the GAO report on the Department of Justice's Memorandum of Law was not available to us until after the hearing, you asked us to respond in writing to GAO's comments. We note that the GAO analysis concludes that the Department of Justice's Memorandum of Law is a "complete and accurate discussion of the statutes available to the President in various oil emergencies."

The GAO analysis makes several general observations, based on its review of the Memorandum of Law, about the adequacy of the emergency authorities available to the President and possible problems in application or implementation of the various existing statutory authorities. We do not interpret these comments as inconsistent with the analysis contained in the Memorandum of Law. We perceive the points discussed by GAO to be constructive commentary appropriately offered by GAO, but beyond the scope of the mandate given the Attorney General in § 3 of the EEPA to describe the authorities available to the President under existing law to respond to an oil shortage. Indeed, we believe that it would have been inappropriate for the Department of Justice to address these points in the Memorandum of Law.

GAO also prepared, as an appendix to its analysis, a detailed description of the statutory authorities identified in the Memorandum that would be available in the three specific situations enumerated in § 3 of the EEPA. Basically, this presentation expands on the listing of statutes contained in section III of the Memorandum of Law, adding a brief description of the particular authorities that would be available in each of the "trigger" situations. This presentation is not inconsistent with the discussion in the Memorandum of Law, */ and we do not understand GAO's comments to suggest that the Memorandum necessarily should have contained such a discussion. We have no criticism of the contents of the appendix.

I hope this information is helpful to the Committee. Please let me know if I can be of further assistance.

Sincerely,

Robert B. Shanks

Robert B. Shanks
Deputy Assistant Attorney General
Office of Legal Counsel

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*/ GAO points out that section III of the Memorandum of Law does not list the Energy Policy and Conservation Act and the Emergency Energy Conservation Act of 1979 among the authorities that would be available to the President in the first enumerated "trigger" situation, *i.e.*, "limited or general war, international tensions that threaten national security, and other Presidentially declared emergencies." As noted in the Memorandum, any attempt to subdivide the President's authorities into the three categories listed in the EEPA is difficult and inevitably misleading. In an attempt to give some content to the somewhat arbitrary categories, we limited the statutes listed under the first heading to those primarily intended to be used to promote the national defense and national security of the United States. We do not suggest that the EPCA and the EECA might not also be available in that situation. As GAO correctly points out, one consideration the President may take into account in determining whether a "severe energy supply interruption" exists within the meaning of those statutes is the impact of an energy shortage on the "national safety." Those statutes, however, may also be used in a variety of other situations that do not necessarily involve national security or national defense considerations. For this reason, we chose not to list them in the first enumerated category.

The CHAIRMAN, We will hear from the General Accounting Office, Mr. Kevin Boland. Mr. Boland, would you identify and introduce those who accompany you at the table, please?

STATEMENT OF F. KEVIN BOLAND, SENIOR ASSOCIATE DIRECTOR, RESOURCES, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION, GENERAL ACCOUNTING OFFICE; ACCOMPANIED BY DONALD Z. FORCIER, SENIOR GROUP DIRECTOR, RESOURCES, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION; WILLIAM J. KRUVANT, GROUP DIRECTOR, RESOURCES, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION; RICHARD KASDAN, OFFICE OF GENERAL COUNSEL; AND RICHARD SPRINGER, OFFICE OF GENERAL COUNSEL

Mr. BOLAND. Thank you, Mr. Chairman. We appreciate the opportunity to be here today to discuss the Nation's preparedness for dealing with energy supply disruptions. We have done a substantial amount of work in this area during the past few years, and I have with me today some of the GAO staff who are responsible for that work.

On my immediate right is Don Forcier, Senior Group Director; on his right, William Kruvant, Group Director. Both are responsible for our work in the national energy emergency preparedness area.

On my left are two senior attorneys with our Office of General Counsel—to my immediate left, Richard Kasdan, and on his left, Richard Springer.

The CHAIRMAN. We have your prepared statement. It will be placed in the record in full, you may summarize it in whatever manner you would prefer.

Mr. BOLAND. Thank you, Mr. Chairman.

I might say after monitoring the hearing this morning that sometimes we get into a situation where the evidence doesn't lead to a bottom line. That is, it is just too close to call. For emergency preparedness, however, we firmly believe more should be done, and we firmly believe more could be done, and I would hope we wouldn't shift that burden all to the courts at the time of crisis as indicated by a number of the comments today.

Our work includes a series of reports requested by you, Mr. Chairman, and several members of this committee, that evaluate administration documents submitted to the Congress under the Energy Emergency Preparedness Act of 1982. Among these documents are a Memorandum of Law setting forth legal authorities available to the President to respond to a severe energy supply disruption, two documents detailing how the administration would use the Strategic Petroleum Reserve in an emergency, and a Comprehensive Energy Emergency Response Procedures Report describing the options the President would consider using in an emergency and the procedures to implement them. I might also add that we also report to this committee quarterly on the status of the Strategic Petroleum Reserve and how the administration is complying with applicable legislative requirements.

If I may briefly summarize our findings on the documents which the administration has submitted to the Congress:

(1) The President has different statutory authorities, many of which are not specifically targeted to cope with oil emergencies. These actions taken to respond to a particular oil emergency will have to comply with the different legal requirements. In addition, gaps may exist in the authorities available to the President to deal with these emergencies.

(2) The two SPR use planning documents provide little specific information about the conditions in which SPR oil could be used in an emergency, including the amount, rate; and timing of its use. Furthermore, neither document deals with the important policy questions such as the possibility that some SPR oil might be retained in private inventories after it is sold.

(3) The comprehensive procedures report does not adequately describe specific options to be considered along with related implementing procedures. In addition, statements in the report as well as recent and on-going GAO work in this area demonstrate that key components of the administration's energy emergency preparedness program are still inadequate.

I will have more to say about some of these findings. I would like, however, to talk first about Strategic Petroleum Reserve issues and concerns. At the present time, the SPR is the only real option available to cope with a major supply disruption. While the administration has made good progress in filling and expanding the SPR, its proposed fill rate for fiscal years 1984 through 1986 are disappointing, and delay by about 2 years achievement of the 500-million barrel reserve. I might add, Mr. Chairman, right now we have a drawdown capability of about 1.7 million barrels a day. At a 500-million barrel reserve, we would have a drawdown capability of 3.5 million barrels a day. In contrast, in 1982 we imported about 5-million barrels per day of crude oil and petroleum products—including about 2-million barrels per day from OPEC sources. The higher-SPR drawdown capability of a 500-million barrel reserve will put us n a much better position than we are at the present time.

In fiscal year 1983 the Administration expects to fill the SPR at the rate of 220,000 barrels a day. Their proposed fill rates for fiscal years 1984 through 1986 are considerably below 220,000 barrels a day. These rates would not even fill available permanent storage capacity. I have attached as part of my prepared statement the oil fill and storage capacity estimates implied by the President's budget.

In addition to the SPR fill rate issue, we also have concerns regarding SPR use planning. Protection from the adverse effects of supply disruptions provided by the SPR is largely determined by how quickly the Government can distribute the proper amount of SPR oil. Advance planning for SPR use is crucial to the Government's ability to act quickly, possibly at the outset of a supply disruption. Advance SPR use planning shows oil consumers that drawdown has been effectively planned and so reduces panic buying that contributes to oil price increases in a disruption. It also allows the Government to more easily coordinate stock drawdown with our allies while it deters oil embargoes against the United States by demonstrating our ability to counteract one.

The administration recently issued an SPR drawdown plan and an SPR drawdown and distribution report which we evaluated in our January, 1983, report to this committee. They provide little specific information about SPR use in an emergency, including the amount, rate, and timing of its use. In addition, neither of these documents deal with the important policy questions such as the possibility that some SPR oil might be retained in private inventories after it is sold. We have all learned from the 1979 Iranian supply interruption experience that it is conceivable that buyers, anticipating rising oil prices during an emergency, may choose to hold on to their oil longer.

We believe the administration needs to do more analysis and provide more policy guidance on such questions as the timing of SPR drawdown, optimum drawdown strategies in various types of disruptions, and how it will coordinate stock drawdowns with other countries.

I would now like to turn to the broader issue of comprehensive energy emergency planning. As I mentioned earlier, actions taken to respond to particular oil crises will have to comply with a number of different requirements. For instance, a particular emergency may fit the statutory conditions for a "severe energy supply interruption" under the Energy Policy and Conservation Act, but may not amount to a defense-related emergency under the Defense Production Act. This would mean that the President would have the authority to establish demand restraint measures under EPCA, but could not use the Executive Manpower Reserve which is available only in the defense-related emergencies.

What emerges from this mosaic of statutes are gaps in the emergency authorities available to the President. For example, many experts have noted the lack of a provision, discussed several times this morning, preempting State and local petroleum allocation and price control laws. The Emergency Petroleum Allocation Act of 1973 contained Federal authority to preempt such laws but that act expired in 1981. This omission may set the stage for litigation at the beginning of an emergency to establish the scope of Federal preemption of State and local regulatory activities. Second, also referred to in the hearing this morning, oil industry lawyers question whether the President has clear authority to implement a domestic fair sharing system to carry out U.S. obligations under the International Energy Program. Furthermore, provisions of the SPR drawdown plan may preclude use of most SPR oil to meet these obligations.

With regard to the emergency response options available to the President, or the procedure to implement them, we believe that the options are inadequately detailed in the Comprehensive Energy Emergency Response Procedures Report submitted to the Congress and some face implementation problems. Also the procedures lack necessary details and many of them have not yet been fully developed.

Key program and policy options mentioned in the report include the SPR, the Emergency Executive Manpower Reserve, international energy programs, private oil stocks, and possible Federal preemption of State laws and regulations. I have a few comments on some of these options.

The Executive Manpower Reserve is a potentially useful program. However, the administration has not resolved the legal problems that could prevent its effective use. Using reservists to help manage Federal energy programs during supply disruptions present potential conflict of interest problems. Furthermore, if private industry personnel from various companies work together, there are potential antitrust concerns. Finally, as I noted earlier, the reserves can be activated only in defense-related circumstances.

The administration acknowledges the existence of both conflict of interest and antitrust problems and notes that they impeded use of reserves during the 1973 Arab oil embargo. However, other than Secretary Hodel's statement this morning that the administration is working on this problem, we know of no plans to propose legislation to alleviate these concerns.

The procedures report also identifies several international energy programs relating to U.S. obligations as a member of the International Energy Agency and the North Atlantic Treaty Organization. Little detail is given on the content and status of these programs. Recent GAO work in this area has shown the Government lacks effective procedures under which U.S. oil companies may participate in the IEA Emergency Sharing System with limited antitrust protection during an actual emergency. There are virtually no standby demand restraint programs in place which may be needed to comply with IEA requirements, and there are differences among Agency member countries over prices charged for oil shared under the Emergency Sharing System.

The procedures report asserts that private oil stocks would play a major role in coping with oil supply disruptions and that private and Government stocks currently provide substantial protection against such disruptions. However, the administration does not appear to have decided on the role of private stocks or how to insure that adequate levels are maintained and drawn down during disruptions.

Another key problem only briefly discussed in the procedures report is the potential conflict between Federal and State laws and policies. As I noted earlier, individual States could enact petroleum allocation and pricing laws or other regulatory measures which would be at variance with the administration's free market approach. In fact, about twenty States have oil set-aside or other types of fuel management plans which may be inconsistent with the Federal approach. In its legal memorandum, the Department of Justice acknowledged that it would be difficult to preempt these types of State laws and regulations.

In addition to the concerns we have raised about the response options identified, DOE's Comprehensive Energy Emergency Response Procedures Report does not demonstrate that reliable emergency response procedures are available to implement these options. While the report indicates who the major participants are, it offers little detail on how Government response options would be selected and implemented, which individuals or groups would make key decisions or select response options, how specific organizations would coordinate their activities, and what implementation procedures would be used by each participating group for different response actions. Another problem with the procedures is that they are not finished.

Mr. Chairman, that concludes my summary comments. We would be happy to respond to questions you or members of the Committee may have.

[The prepared statement and additional material submitted by Mr. Boland follows:]

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

For Release at 9:30 a.m.
March 7, 1983

STATEMENT OF
F. KEVIN BOLAND
SENIOR ASSOCIATE DIRECTOR
RESOURCES, COMMUNITY AND ECONOMIC
DEVELOPMENT DIVISION
BEFORE THE
SENATE COMMITTEE ON ENERGY AND
NATURAL RESOURCES

Mr. Chairman and Members of the Committee:

We appreciate the opportunity to be here today to discuss the Nation's preparedness for dealing with energy supply disruptions. GAO has done a substantial amount of work in this area during the past few years. This work includes a series of reports, requested by the Chairman and several Members of this Committee, that evaluate administration documents submitted to the Congress under the Energy Emergency Preparedness Act of 1982 (EEPA). Among these documents are a Memorandum of Law setting forth legal authorities available to the President to respond to a severe energy supply shortage, two documents detailing how the administration would use the Strategic Petroleum Reserve (SPR) in an emergency, and a "Comprehensive Energy Emergency Response Procedures Report" describing the options the President would consider using in an emergency and the procedures to implement them.

If I may briefly summarize our findings on these documents:

1. The Memorandum of Law discusses the individual statutes available to the President in various oil emergencies. The President has different statutory authorities, many of which are not specifically targeted to cope with oil emergencies. These actions taken to respond to a particular oil emergency will have to comply with different

legal requirements. In addition, gaps may exist in the authorities available to the President to deal with these emergencies.

2. The two SPR use planning documents provide little specific information about the conditions in which SPR oil could be used in an emergency, including the amount, rate, and timing of its use. Furthermore, neither document deals with important policy questions, such as the possibility that some SPR oil might be retained in private inventories after it is sold.

3. The comprehensive procedures report does not adequately describe specific options to be considered along with related implementing procedures. In addition, statements in the report, as well as recent and ongoing GAO work in this area, demonstrate that key components of the administration's energy emergency preparedness program are still inadequate.

I will discuss these findings in more detail. Before doing so, however, I would like to talk about Strategic Petroleum Reserve issues and concerns. At the present time, the SPR is the only real option available to cope with a major supply disruption.

SPR fill rate

Over the last two years, the administration has made good progress in filling and expanding the SPR. About 185 million barrels of crude oil were added to the SPR over fiscal years 1981 and 1982. The annual fill rate peaked at 292 thousand barrels a day (MBD) during fiscal year 1981 and dropped to 214 MBD in fiscal year 1982. The Energy Emergency Preparedness Act of 1982 requires a minimum average annual fill rate of at least 300 MBD until there are 500 million barrels in the Reserve. However, if the President finds for any fiscal year that this rate is not in the national interest, the minimum fill rate becomes 220 MBD or the highest practicable rate achievable subject to the availability of funds. In 1983 the administration expects to fill at the rate of 220 MBD.

The administration's proposed fill rates for fiscal years 1984 through 1986 are considerably below 220 MBD and delay by about 2 years the achievement of a 500 million barrel reserve. The proposed fill rates for fiscal years 1984 through 1986 would not even fill available permanent storage capacity. Attachment I summarizes the oil fill and storage capacity estimates implied by the President's budget.

Under the administration's plans for fiscal year 1984, the average fill rate would be about 145 MBD--less than half of the required 300 MBD rate. If the administration maintains its current permanent storage expansion plan, this fill rate would result in nearly 18 million barrels of unused permanent storage capacity by the end of fiscal year 1984. (See Attachment I.) If this additional capacity were filled during the year, the average fill rate could be increased from 145 MBD to about 190 MBD.

Projected oil purchases and prices for fiscal years 1985 and 1986 contained in the administration's fiscal year 1984 Budget imply that the administration plans to fill the SPR at a rate of 100 MBD in those 2 years. This fill rate is about one-third of the required 300 MBD rate and would result in unused storage capacity of over 26 million barrels and 55 million barrels in fiscal years 1985 and 1986, respectively.

Slowing the fill rate will extend the time needed to achieve a 500 million barrel reserve by about 2 years. In establishing the minimum fill rate requirements of the Energy Emergency Preparedness Act, the Congress demonstrated the importance it attached to filling the SPR to a minimum 500 million barrel level. Maintaining a minimum fill rate of 300 MBD after fiscal year 1983 would allow this goal to be reached by January 1985. Lowering the post-fiscal year 1983 fill rate to 220 MBD would delay reaching this target until July 1985. By our calculations, the administration's proposed and implied fill rates of 145 MBD in fiscal year 1984 and 100 MBD thereafter would delay reaching this goal until March 1987 (See Attachment II).

The administration's budget proposal would also delay construction of permanent storage needed for the final 150 million barrels of the planned 750 million barrel reserve. Specifically, the administration has proposed this year to defer funds, as it did in fiscal year 1982, for the development of the Big Hill, Texas site. In addition, the fiscal year 1984 budget contains no funds for construction at Big Hill. The budget states that "a decision on whether to proceed with construction on this site will be reanalyzed in the context of the 1985 budget."

SPR drawdown plans

The protection from the adverse effects of supply disruptions provided by the SPR is largely determined by how quickly the Government can distribute the proper amount of SPR oil. Advance planning for SPR use is crucial to the Government's ability to act quickly, possibly at the outset of a supply disruption. Advance SPR use planning also shows oil consumers that drawdown has been effectively planned and so reduces panic buying that contributes to oil price increases in a disruption. It also allows the Government to more easily coordinate stock drawdown with our allies, while it deters oil embargoes against the United States by demonstrating our ability to counteract one.

While SPR use planning is clearly advantageous, we pointed out in past reports and testimony that the administration has not adequately addressed many crucial policy questions of when and how the SPR should be used. The administration's recently issued SPR Drawdown Plan and SPR Drawdown and Distribution Report, which we evaluated in our January 1983 report to this Committee, provide little specific information about SPR use in an emergency, including the amount, rate, and timing of its use. In addition, neither of these documents deal with important policy questions such as the possibility that some SPR oil might be retained in private inventories after it is sold. As our experience in the 1979 Iranian oil supply interruption demonstrated, it is conceivable that buyers, anticipating rising oil prices during an emergency, may choose to hold on to their oil longer.

In our view, the administration needs to do more analysis and provide more policy guidance on such questions as the timing of SPR drawdown, optimum drawdown strategies in various types of disruptions, and how it will coordinate stock drawdown with other countries. Current research shows that early drawdown is crucial to minimizing price increases from disruptions, but there are circumstances where national security or other factors could suggest later drawdown. Current SPR use plans do not consider or evaluate these tradeoffs or draw conclusions.

The degree to which SPR use is effective depends on a number of variables. For example, it can be made more or less effective depending on such factors as oil inventory levels, consumption, production, and price movements when a disruption occurs. More analytical work on these factors is required to provide a solid basis for good policy decisions on how and when to use the SPR.

Current research also shows that the effect of the SPR on world oil prices depends on other nations' stock policies. If other nations build stocks during disruptions, the effects of SPR drawdown would be blunted, while coordinated drawdown would greatly enhance the effects of the SPR. While the Department of Energy has funded some research on this, it has not, to our knowledge, developed practical plans to coordinate stock drawdown with our allies.

In addition to insufficient analysis in these areas, the administration seems reluctant to state SPR use policies. The administration has stated that it objects to specifying SPR use policies in advance because of: (1) uncertainties about the circumstances of a disruption, (2) the need to preserve Presidential flexibility, and (3) the need to keep sensitive information secret. We do not believe these are valid reasons for avoiding advance planning. Since uncertainties will also exist during disruptions, advance planning could assist decisionmakers by providing the analytical basis for responding more rapidly and effectively to changing conditions. Furthermore, flexibility can be preserved by detailing options rather than prescribing a single plan. The need for secrecy can be preserved by developing plans but not releasing sensitive contents to the public, as is done in military contingency planning.

COMPREHENSIVE ENERGY EMERGENCY PLANNING

The administration's Memorandum of Law and Comprehensive Energy Emergency Response Procedures Report address a broad range of energy emergency preparedness programs and issues, including the SPR. The Memorandum of Law was required by EEPA to describe the nature and extent of the authorities available to the President under existing law to respond to energy emergencies. The procedures report was to describe the options the President would consider using to implement these authorities, specify how potential response actions would be selected and implemented, and recommend additional laws that the President may need to deal with an emergency.

Memorandum of Law

The Department of Justice's memorandum discusses the individual statutes available to the President in various oil emergencies. It discloses that the President has different statutory authorities, many of which are not specifically targeted to cope with oil crises. The different statutes do not use common terms or language to trigger their authorities. Thus, actions taken to respond to a particular oil crisis will have to comply with a number of different legal requirements. For example, a particular crisis may fit the statutory conditions for a "severe energy supply interruption" under the Energy Policy and Conservation Act, but may not amount to a defense-related emergency under the Defense Production

Act. This would mean that the President would have authority to establish demand restraint measures under EPCA, but could not use the Executive Manpower Reserve, which is available only in defense-related emergencies.

What emerges from this mosaic of statutes are gaps in the authorities available to the President to cope with oil crises. Many have noted the lack of a provision preempting State and local petroleum allocation and price control laws. The Emergency Petroleum Allocation Act of 1973 contained Federal authority to preempt such laws, but that Act expired in 1981. This omission may set the stage for litigation at the beginning of a crisis to establish the scope of Federal preemption of State and local regulatory activities. Secondly, oil industry lawyers question whether the President has clear authority to implement a domestic fair sharing system to carry out U.S. obligations under the International Energy Program. Furthermore, provisions of the SPR Drawdown Plan may preclude use of most SPR oil to meet these obligations.

The Comprehensive Procedures Report

The comprehensive procedures report does not adequately deal with the emergency response options available to the President or the procedures to implement them. The options are inadequately detailed and some face implementation problems. Also, the procedures lack necessary detail, and many of them have not yet been fully developed.

"Options" are inadequately detailed and some face implementation problems

Key program and policy options mentioned in the report include the SPR, the Emergency Executive Manpower Reserve, international energy programs, private oil stocks, and possible Federal preemption of State laws and regulations. As noted in our earlier discussion of the SPR, the administration has not yet effectively planned for its use, and plans to substantially slow its fill rate and capacity expansion. In addition, procedures for drawdown and distribution need to be tested (such a test is scheduled for July 1983) and several legal issues identified in our January report should be resolved to facilitate the distribution of SPR oil.

According to the procedures report, another major program the administration intends to use to respond to a severe energy emergency is the Emergency Executive Manpower Reserve. The objective of this program is to use experienced industry personnel who can help identify and assess supply and demand problems and assist in coordinating energy production and distribution during energy emergencies.

While this is a potentially useful program, the administration has not resolved legal problems that could prevent its effective use. Using Reservists to help manage Federal energy programs during supply disruptions presents potential conflict-of-interest problems. Reservists are subject to the same conflict-of-interest laws as all Federal employees. This is of particular concern because criminal penalties are imposed on any Government employee who participates in areas where he has financial or employment-related interest. In addition, reservists are subject to additional conflict-of-interest provisions of the Department of Energy Organization Act. This act would in some circumstances require reservists to divest themselves of financial holdings in any energy concern, and it prohibits any official relation with an energy concern by a supervisory employee of the Department of Energy. Furthermore, if private industry personnel from various companies work together, there are potential antitrust concerns. Finally, the Reserves can be activated only in defense-related circumstances.

The administration acknowledges the existence of both conflict-of-interest and antitrust problems, and notes that they impeded use of the reserves during the 1973 Arab oil embargo. However, it has no current plans to propose legislation to alleviate these concerns. The Department of Energy's Deputy Assistant Secretary for Energy Emergencies told us that it is unlikely that specific proposals would be made before 1984. In our view, the administration may not be able to effectively use the Emergency Executive Manpower Reserve if the disruption occurs before such legislation is enacted.

The procedures report also identifies several international energy programs relating to U.S. obligations as a member of the International Energy Agency (IEA) and the North Atlantic Treaty Organization (NATO). Little detail is given on the content and status of these programs. In addition, recent GAO work in this area has shown that the Government lacks effective procedures under which U.S. oil companies may participate in the IEA Emergency Sharing System with limited antitrust protection during an actual emergency; there are virtually no standby demand restraint programs in place which may be needed to comply with IEA requirements; and there are differences among Agency member countries over prices charged for oil shared under the Emergency Sharing System. In addition, GAO is reviewing possible coordination problems in an energy emergency because of both IEA and NATO treaty commitments along with a followup review of U.S. participation in the IEA in general.

The procedures report asserts that private oil stocks would play a major role in coping with oil supply disruptions and that private and Government stocks currently provide substantial protection against such disruptions. However, the administration does not appear to have decided on the role of private stocks or how to ensure that adequate levels are maintained and drawn down during disruptions. While the report states that private stocks are currently at high levels, it does not mention the decline in stock levels over the past year, or the fact that most of these stocks are needed for operations, and thus cannot be used for emergency drawdown.

Furthermore, the report does not address how the Government might encourage industry to maintain adequate stock levels and draw them down during disruptions. This is of particular concern since a recent Department of Energy-funded study concluded that the reduction in inventory levels has run counter to public sector efforts to increase inventories and that "even moderate panic buying will produce a demand for products that could overwhelm the capacity of the industry to respond." In our view, the administration cannot count on private stock drawdown to mitigate the effects of a disruption. In fact, oil companies may continue to build stocks during disruptions, as has been observed in past disruptions.

A key problem only briefly discussed in the procedures report is the potential conflict between Federal and State laws and policies. As we noted earlier, individual States could enact petroleum allocation and pricing laws or other regulatory measures which would be at variance with the administration's free market approach. In fact, about 20 States have oil set-aside or other types of fuel management plans such as rationing, which may be inconsistent with the Federal approach.

The administration alludes to this problem, stating in the procedures report that in a severe emergency, the Federal Government "may attempt to dissuade the States from taking regulatory actions which conflict with the Federal market strategy." However, the report does not present any possible measures of dissuasion nor does it address the difficulty of litigating, in emergency circumstances, the principles of preemption of State allocation and price controls. In its legal memorandum, the Department of Justice acknowledged that it would be difficult to preempt these types of State laws and regulations.

Emergency response procedures are vague and are not fully developed

Beyond the concerns we have raised about the response options identified in the procedures report, the report does not demonstrate that reliable emergency response procedures are available to implement these options. Section 272(b)(2)(B) required the report to

> "* * *specify how appropriate governmental actions in response to international and domestic energy shortages would be selected and implemented under such options, particularly which official Governmental entity would select and implement such actions, and what procedures would be used in doing so."

However, while the report indicates who the major participants are, including DOE offices, other agencies, and interagency groups, the eight pages specifically devoted to "emergency response procedures" give little detail on how Government response options would be selected and implemented, which individuals or groups make key decisions or select response options, how specific organizations would coordinate their activities, and what implementation procedures would be used by each participating group for different response actions. Another problem with the procedures is that they are not finished. For example, the procedures report acknowledges that detailed procedures have not yet been developed to implement many of the response options we discussed earlier. The report states that "for each of these programs, the DOE is either currently developing detailed procedures * * * or is studying possible measures that might have potential, or is doing both."

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In summary, we would like to re-emphasize a few key points about how we view the administration's readiness to respond to an energy emergency, as reflected in the documents required by EEPA:

--While the administration has made good progress on filling the SPR in the past, its proposed fill rates for fiscal years 1984 through 1986 delay by about two years the achievement of a 500 million barrel reserve. The administration's proposed budget would also delay construction of some permanent storage.

--The administration has not adequately addressed the crucial policy questions of when and how to use the SPR, limiting its ability to counter the adverse effects of disruptions. Questions not adequately addressed include the timing of SPR use, how to use the SPR most effectively under different types of disruptions, and how to coordinate stock drawdown with other countries.

--The President has different statutory authorities to respond to energy emergencies, many of which are not specifically targeted to cope with such emergencies. Thus, actions taken to respond to particular oil emergencies will have to comply with different legal requirements. In addition, gaps may exist in the authorities available to the President to deal with these situations.

--The emergency response options available to the President are inadequately detailed in the comprehensive procedures report and some face implementation problems. Among our specific concerns:

  --Key programs, notably the Strategic Petroleum Reserve (SPR), Emergency Executive Manpower Reserves, and some International Energy Agency programs face major implementation problems.

  --Key policy issues in some program areas (for example, coordination of Federal and State policies and programs) are not adequately resolved.

  --Some key issues, such as the role of private stocks, are barely discussed or are omitted altogether.

--The procedures report does not demonstrate that reliable emergency response procedures are available to implement the above options. Specifically:

  --The descriptions of the roles of decisionmakers, and those implementing their actions, lack necessary detail. As a result, the procedures to be followed within the Department of Energy and other organizations and among agencies are not clear.

--Many of the procedures have not yet been fully developed.

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That concludes my prepared testimony. We would be happy to respond to any questions.

ATTACHMENT I

ATTACHMENT I

SPR OIL FILL AND STORAGE CAPACITY ESTIMATES

BASED ON THE BUDGET PROPOSAL

	FY 1983	FY 1984	FY 1985	FY 1986
Average fill rate (MBD)	a/ 216	145	100	100
Total fill (million barrels)	357	410	446	483
Total capacity (million barrels)	357	b/ 428	b/ 473	c/ 538
Unused capacity (million barrels)	--	18	27	55
Average fill rate if excess capacity used (MBD)		190	123	179

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a/The FY1984 Budget calls for an average fill of 216 MBD; however, the Department of Energy now plans to fill at an annual average rate of 220 MBD.

b/Revised capacity estimates per the Department of Energy.

c/Previous capacity schedule.

SPR OIL FILL SCHEDULES TO ACHIEVE 500 MILLION BARRELS IN STORAGE (note a)

(millions of barrels)

Fiscal year	Assuming FY 1984 budget fill rates b/	Assuming permanent storage capacity is filled	Assuming 220 MBD fill rate	Assuming 300 MBD fill rate
1983	c/ 357	357	358	d/ 358
1984	410	428	439	468
1985	446	473	e/ 500	e/ 500
1986	483	e/ 538		
1987	e/ 519			

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a/There were 278 million barrels in storage at the end of fiscal year 1982.

b/Assuming fill rates of 216 MBD in FY 83, 145 MBD in FY 84 and 100 MBD thereafter.

c/The Department of Energy now expects to fill at a 220 MBD rate in fiscal year 1983.

d/On December 1, 1982, the President found that it is not in the Nation's interest to fill the SPR at a rate of 300 MBD in fiscal year 1983. The Administration has not determined what is the highest practicable fill rate, but currently it plans to fill the SPR at a rate of 220 MBD.

e/500 million barrel reserve reached in March 1987 at budgeted fill rate, February 1986 if available capacity filled, July 1985 if filled at 220 MBD, and January 1985 if filled at 300 MBD.

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

OFFICE OF GENERAL COUNSEL

March 4, 1983

B-210236

The Honorable James A. McClure
Chairman, Committee on Energy
and Natural Resources
United States Senate

The Honorable John Warner
Chairman, Subcommittee on Energy
and Mineral Resources
Committee on Energy and Natural
Resources
United States Senate

The Honorable Henry M. Jackson
United States Senate

The Honorable Bill Bradley
United States Senate

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
MAR 4 1983
WASHINGTON, D.C. 20510

Dear Mr. Chairman:

In your August 11, 1982, letter you requested that we analyze documents to be prepared by the administration under the Energy Emergency Preparedness Act of 1982. One of these documents is a legal memorandum, "Legal Authorities Available to the President to Respond to a Severe Energy Supply Interruption or Other Substantial Reduction in Available Petroleum Products," prepared by the Office of Legal Counsel, Department of Justice (November 15, 1982).

Our review and analysis of the Department of Justice legal memorandum accompanies this letter. In general, the memorandum is a complete and accurate discussion of the statutes available to the President in various kinds of oil emergencies. However, our review suggests several general observations not contained in the memorandum that may be instructive to Congress. In addition, we have developed a more detailed presentation than the memorandum's concerning the specific Presidential authorities available in the three categories of situations described in the Act.

Our report discusses our general observations and provides in Appendix A what we believe is a more detailed picture of Presidential authorities to act in the situations described in this statute. Staff of our Office of General Counsel will be available to discuss any matters covered in our review.

Sincerely yours,

Harry R. Van Cleve

Harry R. Van Cleve
Acting General Counsel

ANALYSIS OF DEPARTMENT OF JUSTICE MEMORANDUM CONCERNING PRESIDENT'S STATUTORY AUTHORITIES IN OIL CRISES

I. Background

The purpose of this report is to analyze and to comment on a memorandum of law, "Legal Authorities Available to the President to Respond to a Severe Energy Supply Interruption or Other Substantial Reduction in Available Petroleum Products", prepared by the Office of Legal Counsel, Department of Justice (November 15, 1982). The General Accounting Office received a congressional request to analyze the Department of Justice's legal memorandum.

Section 3 of the Energy Emergency Preparedness Act of 1982 (EEPA), Pub. L. No. 97-229, approved August 3, 1982, 96 Stat. 248, required the President to submit to the Congress a memorandum of law, describing the nature and extent of his authorities under existing law to deal with various kinds of oil crises. The memorandum was to be prepared by the Attorney General, in consultation with the Secretary of Energy, and submitted to the Congress no later than November 15, 1982.[1] It is a prerequisite for the comprehensive energy emergency response procedures the President was required to submit under EEPA to Congress by December 31, 1982.[2]

One of the principal purposes of EEPA is to assure that as a supplement to reliance on the the free market, the Federal government has adequate authority and procedures to cope with the consequences of future serious petroleum shortages resulting from reductions in imports. EEPA was enacted after the President had vetoed S. 1503, 97th Congress, the proposed Standby Petroleum Allocation Act of 1982. In that bill, the

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[1] Section 3 of EEPA added a new Part C to Title II of the Energy Policy and Conservation Act (EPCA), classified to 42 U.S.C. § 6281 *et seq*.

[2] Section 272(b) of EPCA, as added by Section 3 of the EEPA.

Congress adopted an approach toward oil emergencies which was similar to the one embodied in the Emergency Petroleum Allocation Act, Pub. L. No. 93-159. This act, which expired on September 30, 1981, had provided the President with broad authority to allocate and set the price of petroleum products in the aftermath of the 1973-74 oil crisis.

S. 1503 would have given the President discretionary standby authority to allocate and, if necessary, to control the prices of petroleum products in future serious oil import emergencies. State laws and regulations providing for allocation and price control would have been preempted. In contrast, EEPA does not increase the authorities of the Federal government to deal with oil emergencies or supersede State authorities.[3] Instead, it requires the President to submit to Congress an inventory of existing Presidential authorities and comprehensive response procedures for implementation of his existing authorities, together with recommendations for additional statutory authorities the President may need.

II. Scope of Review

In our review, we examined the laws, legislative histories, cases, and other documents referred to, or cited in, the memorandum of law. In addition, we looked at other laws, regulations, court cases, and written legal materials, including articles, to identify other Presidential authorities which should have been included in the memorandum. We were able to identify only one minor statute which the memorandum did not include. We did not request or review any of the materials which the Department of Justice used in preparing its memorandum.

III. Major Parts

In general, the Department of Justice memorandum is a complete and accurate discussion of the statutes available to the President in various oil emergencies. However, our review of the memorandum points to several general observations that we believe are informative to the Congress. In addition, we have developed a more detailed presentation of the specific Presidential authorities available in the three categories of situations described in EEPA.

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[3] Section 272(d) of EPCA, as added by Section 3 of EEPA.

Our review of the Justice Department's memorandum disclosed that the different statutes do not use common terms or language to trigger the authorities. Different statutory criteria activate the President's authorities so that a particular oil crisis will have to satisfy--and may often do so--a number of different statutes. For example, "a severe energy supply interruption" is the key to utilization of certain provisions of the Energy Policy and Conservation Act, 42 U.S.C. § 6201 et seq., the Emergency Energy Conservation Act, 42 U.S.C. § 8501 et seq., and the Powerplant and Industrial Fuel Use Act of 1978, 42 U.S.C. § 8301 et seq. On the other hand, authorities under the Defense Production Act of 1950, 50 U.S.C. App. § 2061 et seq., are generally only available in connection with national defense and defense preparedness activities. Similarly, the International Emergency Economic Powers Act, 50 U.S.C. § 1701 et seq., and the Trade Expansion Act of 1962, 19 U.S.C. § 1801 et seq., may be activated as a result of national security considerations.

What emerges from the memorandum is a legislative mosaic of discretionary statutory authorities, many of which are not specifically targeted to cope with oil crises. These authorities do not include: (1) authority to allocate and control prices of petroleum products in the civilian market and (2) an express statutory preemption of State and local laws affecting these areas.

In addition, relying on statutory authorities which have different triggers and which are not aimed specifically at oil emergencies may result in implementation problems. For example, a particular crisis may fit the statutory conditions for a "severe energy supply interruption", but may not amount to a defense-related emergency. This would mean that the President would have authority to establish demand restraint measures, but could not use the Executive Manpower Reserve, which is available only in defense-related emergencies. Also, the role of State and local regulatory programs is left unclear. This may set the stage for a spate of litigation at the beginning of a crisis concerning the scope of Federal preemption of State and local regulatory activities.

Our review revealed several other important points that warrant highlighting for Congress. These points are:

1. No general authority to allocate and control prices

Except to the limited extent provided in Section 101(b) of the Defense Production Act, 50 U.S.C. § 2071(b), the President does not have general authority to allocate and control the prices of petroleum products in the civilian market during any of the situations referred to in the memorandum of law. Section 101(b) provides that the President may control the general distribution of materials (e.g. oil) in the civilian market only if he finds that (1) a material is a "scarce and critical material essential to the national defense" and (2) defense needs cannot be met without causing "significant dislocation" and "appreciable hardship" in such market.

2. Expiration of certain presidential authorities in 1983

Three of the statutes discussed in the memorandum--the Defense Production Act (DPA), the Emergency Energy Conservation Act (EECA), and the Export Administration Act of 1979 (EAA)--will expire if not renewed or extended in 1983. DPA expires on March 31, EECA on July 1,[4] and EAA at the end of September. The DPA and export control statutes have been extended or reenacted periodically. EECA will first be considered for renewal this year. If it is not renewed, formal development and implementation of standby energy conservation plans and measures will only be authorized under the Energy Policy and Conservation Act. This act does not give the States the same role in restricting demand that is presently available under EECA.

3. Department of Energy conflict-of-interest provisions

Although the conflict-of-interest provisions of the Department of Energy Organization Act (42 U.S.C. § 7211-7218) are briefly discussed, the memorandum does not point out the possible impact they may have on the employment of persons from the private sector under section 710 of DPA, 50 U.S.C. App. § 2160. Section 710 provides two authorities for the employment of persons from the private sector to plan for or to deal with defense-related emergencies. Subsection (b) allows the President to employ, in an advisory capacity and without compensation, "persons of outstanding experience and ability." Subsection (e) authorizes the President to establish and train "a nucleus executive reserve [Executive Reservists] for employment in executive positions in Government during periods of emergency."

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[4] Only Part C, Title II, of EECA, which amended Section 202 of EPCA, 42 U.S.C. 6262, would continue in existence. This provision concerns State or local contingency plans to conserve energy in buildings.

In light of certain of the conflict-of-interest provisions in the Department of Energy Organization Act, planned reliance on the use of private sector persons to implement any substantial part of the Department of Energy's energy emergency responsibilities may be hindered. Particularly important are those statutory provisions (1) requiring divestiture of financial holdings in any energy concern and (2) prohibiting any official relationship with any energy concern by a Department supervisory employee or one authorized to make comparable decisions. Those most affected would be Executive Reservists who are activated to perform in supervisory or comparable decisionmaking positions and persons employed under Section 710(b) in a decision-making capacity. It is not clear how these conflict-of-interest provisions would be implemented, when coupled with the limited Secretarial waiver authority and other provisions of the Department of Energy Organization Act.

4. Potential Litigation Over Implementation

There are potential implementation difficulties arising from (1) the absence of explicit Federal preemption for key energy programs, and (2) possible litigation over the Justice Department's interpretation of certain of the energy emergency statutory provisions.

Although the memorandum carefully sets forth the legal theory and case law of Federal preemption, the difficulty and consequences of applying the principle in emergency circumstances are not fully developed. The Federal Government may prevail in establishing case-by-case Federal preemption on the basis of Federal statutes that do not contain an explicit preemption provision. The Government also may establish State violations of prohibitions under the Commerce Clause of the Federal Constitution even absent a Federal statute. However, the remedies may be too little and too late. The Federal Government's responsibilities may be most critical at the beginning of any energy emergency crisis, yet at that time its authority may be open to challenge.

In addition, oil industry lawyers have informally advised the Administration that if the Government attempts to implement certain of the energy emergency statutory authorities in the manner in which the Justice Department has construed them in its memorandum, elements in the private sector will institute litigation to enjoin implementation. An example is the Administration's construction of section 251 of the EPCA, 42 U.S.C. § 6271, so as to permit limited domestic petroleum allocation. Such litigation could impede fulfillment of the obligations of the United States under the International Energy Program. The International Energy Program is an agreement among Western developed countries to deal with oil supply interruptions and to lessen these nations' dependence on imported oil. Clarifying legislation now, before an international energy emergency occurs requiring implementation of section 251, might merit consideration.

5. The Congressional limitations on Presidential authority in National Emergency Act not applicable to most statutes available in oil emergencies

The limitations on executive authority which Congress included in the National Emergencies Act (NEA), 50 U.S.C. § 1601 *et seq.*, are not applicable to most of the statutes giving the President authority in serious oil emergencies. The NEA applies to laws that authorize the exercise of special or extraordinary power during a period of national emergency which the President has formally declared. Under the NEA, Congress has an opportunity every 6 months to terminate a presidentially declared national emergency and such an emergency terminates at the end of 1 year unless the President continues it in effect.

Of the major statutes discussed in the memorandum of law, only the International Emergency Economic Powers Act, 50 U.S.C. § 1701 *et seq.*, requires a formal Presidential declaration of national emergency which would be subject to the NEA. In other statutes the word "emergency" is utilized in different contexts. For example, the definition of "severe energy supply interruption" in EPCA refers to an energy supply shortage of "an emergency nature". The Disaster Relief Act defines "emergency" in terms of natural catastrophes or their consequences. 42 U.S.C. § 5122(i). However, the NEA would not apply to these statutes.

6. EPCA and EECA availability in national defense and national security situations

EEPA requires the memorandum of law to distinguish among three types of situations. The first of these concerns situations involving national defense and national security, *i.e.*, "limited or general war, international tensions that threaten national security, and other Presidentially declared emergencies."

The memorandum's list of statutory authorities available in factual situations related to national defense and national security ought to include the demand restraint measures under both EPCA and EECA, as well as the authority to draw-down oil from the Strategic Petroleum Reserve and to increase oil and gas production on Federal lands and in States under EPCA. These EPCA and EECA authorities are triggered by a "severe energy supply interruption". In both cases, the term can refer to a national energy supply shortage, which among other things, the President determines may have a major adverse impact on national security[5] and which may likely result from an interruption in the supply of petroleum products.

We recognize, that not every severe energy supply interruption will necessarily involve the national defense or national security. However, the national defense or national security will be impacted by many situations involving a severe energy supply interruption.

7. Utilization of alternate energy sources (gas, coal, and electricity) during a serious petroleum crisis

The memorandum does not fully discuss the extent and significance of the President's authorities (or lack of authorities) to require the substitution, or arrange for the utilization, of alternate energy sources--principally coal, natural gas and electricity--during a serious petroleum crisis. No general statute provides the Federal government with authority to order the utilization of available alternate energy sources during a shortage of one or more particular energy sources.

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[5] "National safety" is the term used in EPCA. It might encompass more than just "national security."

Many of the energy statutes tend to be limited to one energy source.[6]

Generally, the Federal government has statutory authority to deal with emergency-type situations involving a particular energy source, e.g., electricity, oil, or gas. However, these authorities do not have a common trigger. Each authority is available when an emergency situation exists or is imminent with respect to that particular energy source. For example, at the beginning of an oil crisis, under existing law only the authorities triggered by an oil emergency become available for use by the President. These deal primarily with oil. However, by the operation of the market, oil users will tend to switch to gas, electricity or coal to the extent these fuels may meet their particular needs. If the crisis becomes more severe, increased demands for electricity might become so great that electricity becomes sufficiently scarce to activate the electricity emergency authorities under subsection 202(c) of the Federal Power Act, 16 U.S.C. § 824a(c). Similarly, if instead the demands for natural gas increased to create a shortage of natural gas, natural gas emergency authorities under sections 301 to 304 of the Natural Gas Policy Act, 15 U.S.C. §§ 3361-3364, could be activated.

The significant point is that the emergency authorities associated with each energy source are activated at a different time and for a different reason, and only after the emergency has spread to the particular energy source. During an oil crisis, the President does not have statutory authority to take actions from the beginning of the crisis, which might limit the crisis to oil by affecting the use trends of other fuels so that shortages may not disproportionately develop with respect to any other energy source.

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[6] One important exception during an oil crisis is found in the Powerplant and Industrial Fuel Use Act of 1978. Under subsection 404(b) of this Act, 42 U.S.C. § 8374(b), the President may prohibit electrical utilities and major fuel-burning installations from using natural gas, as well as oil, during a severe energy supply interruption. In addition, under subsection 404(a) of the Act, 42 U.S.C. § 8374(a), the President, by order, may allocate coal for the use of any electric powerplant or major fuel-burning installation.

8. Additional International Obligations

Under Articles 52 and 61 of the Agreement on an International Energy Program, decisions of the Governing Board of the International Energy Agency are binding on participating countries. These may include decisions which impose new obligations not already specified in the Agreement as well as those applying provisions of the Agreement. An example of a Governing Board decision of particular legal significance is the adoption of the Emergency Management Manual. The Manual sets forth the obligations and procedures for implementing the international oil emergency sharing system.

9. Statutory authority to act in several instances not in President

The memorandum discussed several statutes that provide authority to governmental entities other than the President, i.e., secretaries of departments or independent regulatory commissions. Departmental secretaries are subject to Presidential direction and control, but independent regulatory commissions, such as the Federal Energy Regulatory Commission (FERC) and the Interstate Commerce Commission (ICC), are not.

Authorities granted to departments include: (1) Section 202(c) of the Federal Power Act, 16 U.S.C. § 824a(c), (Secretary of Energy) concerning emergency authorities with respect to electrical energy, (2) the Magnuson Act, 50 U.S.C. § 191, (Secretary of Transportation) relating to the regulation of the movement of vessels in U.S. territorial waters during a Presidentially declared emergency; and (3) Section 36 of the Mineral Lands Leasing Act, 30 U.S.C. § 192, (Secretary of Interior) involving payment in kind of royalties under oil and gas leases.

Authorities granted to independent regulatory agencies include: (1) sections 210 and 211 of the Federal Power Act, 16 U.S.C. § 824i and § 824j (Federal Energy Regulatory Commission) concerning respectively the physical connection of electric facilities and wheeling transmission services; (2) section 7 of the Natural Gas Act, 15 U.S.C. § 717f, (Federal Energy Regulatory Commission) involving expansion of gas transportation facilities; and (3) Interstate Commerce Act, as amended, 49 U.S.C. § 10928 and § 11123, (Interstate Commerce Commission) relating respectively to temporary service of new motor and water carriers and priority movement of commodities by rail during an emergency.

IV. Listing of Authorities by Emergency Situation

EEPA requires the memorandum of law to distinguish among:

> "(i) situations involving limited or general war, international tensions that threaten national security and other Presidentially declared emergencies, (ii) events resulting in activation of the international energy program and, (iii) events or situations less severe than those described in clauses (i) and (ii)."

The memorandum lists the statutes only by the numbered general categories. However, the first and third categories include several kinds of situations. For example, the first category covers wars, international tensions threatening national security, and other Presidentially declared emergencies. The statutory authorities are not matched to each of the situations in a category. Thus, it is hard to tell whether the same statute does or may apply to each event in a category. The third category could include several different levels of oil supply interruptions, related natural gas emergencies and other kinds of events affecting U.S. energy resources.

To provide Congress with a more detailed picture of the authorities the President may have to act in these types of situations, we have prepared Appendix A. It is a descriptive breakdown of the laws that the President may be able to utilize in each different event. Appendix A also includes a discussion of what authorities the President lacks under each event.

This analysis illustrates that in each situation the President will have to rely for his authority on statutes with different terms to trigger their provisions.Many of these "triggers" will encompass the particular event.For example, under DPA the "national defense needs" trigger probably always covers war and national security situations. But, this is not always the case under the other statutes. For example, an element of a "severe energy supply interruption" under EPCA is its major adverse impact on national security ("national safety"). But, another element prescribes that the interruption result from an imported oil shortage. Thus, while wars or international tensions threatening national security may occur, they do not always result in an interruption of imported oil. Consequently, the trigger under EPCA may not be legally activated in every war or national security situation.

We conclude that most of the time in category (i) situations--concerning national defense and national security--most statutes discussed in the memorandum will be available to the President. But, many of the statutes will not be available for category (iii) situations--less severe events or situations.

APPENDIX A

Statutory Authorities to Deal With Severe Energy Supply Interruptions or Other Substantial Reductions in Available Petroleum Products

INTRODUCTION

This Appendix groups and describes by specific event or situation the statutory authorities listed in Part III ("Triggers for Exercise of Statutory Authorities") of the Department of Justice legal memorandum submitted to Congress on November 15, 1982, pursuant to Section 272(a) of the Energy Policy and Conservation Act, as added by Section 3 of the Energy Emergency Preparedness Act of 1982, Pub. L. No. 97-229, approved August 3, 1982, 96 Stat. 248, classified to 42 U.S.C. § 6282. This presentation should provide Congress with a clearer picture of the authorities the President has to deal with serious petroleum shortages resulting from certain specific events or situations. Under each specific event the authorities the President lacks are also mentioned.

The events and situations included in this Appendix are those set out in Section 272(a), i.e., (i) limited or general war, international tensions that threaten national security, and other Presidentially declared emergencies; (ii) activation of the International Energy Program (IEP); and (iii) less severe events or situations. We have divided the last group into (1) severe energy supply interruptions and (2) authorities with respect to other energy resources.

Presidential authorities under each event or situation are depicted by types of authorities. The types of authorities listed represent the major types of authority the President has under the statutes discussed in the Department of Justice legal memorandum. These types of authority are: (1) allocation and price controls of petroleum products; (2) import and export controls of such products; (3) personnel authorities; (4) demand restraint measures; (5) priority for contracts, orders, and supplies relating to petroleum products; (6) increasing domestic crude oil production; (7) petroleum reserves; (8) establishment and maintenance of energy-related facilities; and (9) other statutes. Several statutes that are applicable in all situations are discussed under "miscellaneous statutes" at the end of the Appendix.

Several statutes included in the Appendix provide authority respectively to the Federal Energy Regulatory Commission and the Interstate Commerce Commission. Both of these bodies are independent regulatory commissions and are not legally responsible to the direction of the President as are heads of departments. They have only been included in this Appendix because they are discussed in the Department of Justice legal memorandum. We have also added one statute which did not appear in the legal memorandum, 10 U.S.C. § 4742 (See discussion at I.H1(c)).

In one important respect, we have treated the International Energy Program differently than the other two types of situations because it involves a specific event. The other two types of situation each concern several events. Although the same format has been followed for the IEP, we have not included any discussion of statutes other than those triggered by the U.S. obligations under the IEP. We recognize, however, that other statutory authorities discussed in the memorandum of law might be available to the President in fact situations which will involve the IEP.

This analysis illustrates in each situation that the President will have to rely for his authority on statutes with different terms to trigger their provisions. Many of these "triggers" will encompass the particular event. For example, under the Defense Production Act the "national defense" needs trigger probably always covers war and national security situations. But, this is not always the case. Some triggers may not always be activated in time of war and national security situations. For example, an element of a "severe energy supply interruption" under the Energy Policy and Conservation Act is its major adverse impact on national security ("national safety"). But, another element prescribes that the interruption result from an imported oil shortage. Thus, while international tensions threatening national security may occur, they do not always result in an interruption of imported oil. Consequently, the trigger under this Act may not be legally activated in every war or national security situation.

We conclude that most of the time in situations included in (i) above--concerning national defense and national security--most statutes discussed in the memorandum will be available to the President. But, many of the statutes will not be available for situations in (iii) above--less severe events or situations.

I. Limited or General War

A. Allocation and Price Control of Petroleum Products

1. Defense Production Act

(a) General Allocation- The President has authority to allocate materials, including petroleum products, when necessary or appropriate to promote the national defense. 50 U.S.C. App. § 2071(a). He may control the general distribution of a material in the civilian market only if he finds that (1) the material is a "scarce and critical material essential to the national defense" and (2) defense needs cannot be met without causing "significant dislocation" and "appreciable hardship" in the civilian market. 50 U.S.C. App. § 2071(b). It is unclear whether the President has authority to impose price controls on the petroleum products so allocated.

(b) Enhancing Domestic Energy Supplies- The Defense Production Act also contains a provision allowing the President to allocate supplies of materials and equipment to maximize domestic energy supplies under certain carefully defined circumstances. 50 U.S.C. App. § 2071(c). This section is not limited only to defense-related activities as are the other parts of the DPA. It is available to the President, if he can make certain findings regarding the scarcity and essentiality of the supplies of materials and equipment. The term materials includes "raw materials" and "products". This provision may arguably authorize the allocation of petroleum products to enhance domestic energy supplies.

2. Trading with the Enemy Act- In time of war, the President may control property which is subject to the jurisdiction of the United States and in which a foreign country or national has an interest. This authority applies both to wholly domestic and international transactions. 50 U.S.C. App. § 5.

B. Import and Export Controls of Petroleum Products

1. Trading with the Enemy Act- In time of war, the President may control property which is subject to the jurisdiction of the United States and in which a foreign country or national has an interest. This authority applies both to wholly domestic and international transactions. 50 U.S.C. App. § 5.

2. Export Administration Act- The President may establish export controls on any goods and technology to further the foreign policy interests of the United States and to protect the economy from the drain of scarce resources. 50 U.S.C. App. § 2406. (The pursuit of war would, of course, be a U.S. foreign policy interest.)

Certain limitations are placed on the export of refined petroleum products, 50 U.S.C. App. § 2406(e) and on Alaskan crude oil transported by pipeline over Federally-granted rights of way, 50 U.S.C. App. § 2406(d). (Separate statutes make the provisions of the EAA applicable to (i) petroleum products from the Naval Petroleum Reserves, 10 U.S.C. § 7430(e); (ii) oil and gas from the Outer Continental Shelf, 43 U.S.C. § 1354(a); and (iii) crude oil transported over Federally-granted rights of way, 30 U.S.C. § 185u).

3. Energy Policy and Conservation Act- The President may restrict exports of energy supplies, including petroleum products, and materials or equipment related to energy production and utilization to carry out the purposes of the Act. He is required to use this authority to establish restrictions on the export of crude oil and natural gas produced in the United States. (The President may exempt from such restrictions certain exports which are consistent with the national interest and the Act's purposes. He must also consider the national interest as it relates to certain kinds of transactions.) 42 U.S.C. § 6212.

The trigger for the use of this authority is not war, but the authority would be available to the President in time of war.

4. Trade Expansion Act- The President has authority to adjust the imports of a particular commodity which threatens the national security. The Secretary of Commerce must find that a particular article or commodity is entering

the United States under such circumstances and in such quantity to threaten to impair the national security. Such a finding may reflect the need to have sufficient domestic production and industrial capacity to meet U.S. defense requirements. 19 U.S.C. § 1862(b). Measures the President adopts must have an initial and direct effect on the imported commodity.

The trigger for the use of this authority is not war, but the authority would be available to the President in time of war.

C. Personnel Authorities

1. Defense Production Act

(a) Outstanding Individuals- The President may employ persons of outstanding experience and ability to serve without compensation in advisory positions in government when such employment is related to national defense and national defense preparedness. This authority is subject to several limitations, including: (1) no other person is available for the position on a full-time salaried basis; (2) the person selected has the outstanding experience and ability required by the job; and (3) the individual cannot be appointed to a policy-making post. 50 U.S.C. App. § 2160(b). Federal conflict of interest and anti-trust laws are applicable to the activities of such persons.

(b) Executive Reserve- The President may establish and train an Executive Reserve for employment in government during "periods of emergency" that "would adversely affect the defense preparedness of the United States." 50 U.S.C. App. § 2062 and 2160(e).

(c) Voluntary Agreements- The President has authority to approve voluntary agreements among private parties to develop defense preparedness programs and to expand productive capacity and supply beyond civilian needs. A precondition for his approval is a Presidential finding that conditions exist which may be a direct threat to U.S. national defense and its preparedness programs. The Attorney General must indicate that the purpose of the agreement cannot be achieved without any agreement or by an agreement with less anti-competitive effects. An anti-trust defense is available only for domestic activities to develop or carry out such an agreement. 50 U.S.C. App. § 2158. Such a defense is not available under the authority for voluntary agreements to carry out the International Energy Program or other international arrangements relating to petroleum products to which the U.S. is a party. 50 U.S.C. App. § 2158a(o).

2. Foreign Assistance Act- An agency of the United States may furnish assistance, services and commodities to friendly countries on an advance-of-funds basis when the President determines that this will be consistent with and in furtherance of the purposes of the Foreign Assistance Act. Such assistance, services and commodities must help to promote international economic and political stability. 22 U.S.C. § 2346, § 2357, and § 2393.

D. Demand Restraint Measures

1. Energy Policy and Conservation Act and Emergency Conservation Act of 1979- In the event of war, no statute included in the Department of Justice memorandum of law specifically covers this category. However, the demand restraint measures provided for in the Energy Policy and Conservation Act and the Emergency Energy Conservation Act of 1979 may be available.

Demand restraint measures in both statutes may be utilized in connection with severe energy supply interruptions (or the U.S. obligation under the International Energy Program). This term is defined in a similar manner in each statute. It can refer to a national energy supply shortage, which among other things, the President determines may have a major adverse impact on national security ("national safety" is the term used in EPCA) and which may likely result from an interruption in the supply of imported petroleum products.

These conditions might be satisfied when the United States is engaged in a major or limited war. The Department of Justice memorandum fails to include both of these statutes in its list of laws which provide the President with authority during wars, international tensions that threaten national security, and other Presidentially declared emergencies.

EPCA provides authority for the President to establish energy conservation contingency plans to restrict the public and private use of energy. 42 U.S.C. §§ 6261 and 6262. EECA grants the President authority to establish energy conservation targets and to approve State plans to carry out demand restraint measures to reach them. 42 U.S.C. §§ 8511-8513.

E. Priority for Contracts, Orders and Supplies Relating to Petroleum Products

1. Defense Production Act- The President may require that contracts or orders necessary or appropriate to promote the national defense take priority over performance under any other contracts or orders. The same limitations that apply to the President's authority to allocate materials attach to this authority. (See the discussion in I.A.1.(a)above.) 50 U.S.C. App. § 2071(a).

F. Increasing Domestic Crude Oil Production

1. Naval Petroleum Reserves Production Act- The President approves the Secretary of Energy's finding that oil production from the Naval Petroleum Reserves is needed for the national defense; but actual production must be authorized by a joint resolution of Congress, 10 U.S.C. § 7422(b)(2). (A temporary emergency rate of production could be approved under this authority to produce for the national defense.)

2. Energy Policy and Conservation Act- This statute assigns to the President authority to order oil production on Federal lands, and under certain circumstances in States, at the maximum efficient rate (MER) or temporary emergency rate. 42 U.S.C. § 6214. However, with the exception of MER production on Federal lands, the event that triggers this authority is a severe energy supply interruption. (The definition of this term and its appropriate use during war situations has been previously discussed under I.D.1. above.)

G. Petroleum Reserves

1. Energy Policy and Conservation Act- The President has authority to establish a Strategic Petroleum Reserve which may be utilized during severe energy supply interruptions and to meet the United States obligations under the International

Energy Program. 42 U.S.C. § 6241. (See discussion in I.D.1. above.)

H. Establishment and Maintenance of Energy-related Facilities

1. Federal Power Act-

(a) Temporary Connection and Exchange of Facilities- During a war, the Secretary of Energy has authority to order the temporary connection of facilities and the generation, delivery, exchange or transmission of electric power provided it will serve the public interest. 16 U.S.C. § 824a(c).

(b) Physical Connection of Facilities- The Federal Energy Regulatory Commission may, pursuant to an application, or on its own motion, order the physical connection of any cogeneration facility, small power production facility or transmission facilities with the facilities of another electric utility. 16 U.S.C. § 824i. This authority is available to the Commission at all times and not only in the event of war.

(c) Wheeling of Power- FERC may order any electrical utility to provide transmission services, including enlarging transmission capacity, to another utility, geothermal power producer or power marketing agency. 16 U.S.C. 824j. (This authority is available to the FERC under all circumstances.)

2. Magnuson Act- The President has authority to safeguard from destruction, loss or injury vessels, harbors, and ports and waterfront facilities and to govern the movement of foreign vessels in U.S. waters. The President must find that the security of the United States is endangered by reason of actual or threatened war, insurrection or invasion. U.S.C. § 191.

3. Systems of Transportation- During time of war, the President through the Secretary of the Army may take possession and assume control of any systems of transportation for any purpose related to the war. He may exclude other traffic as far as necessary. 10 U.S.C. § 4742. (This provision was not included in the Department of Justice legal memorandum.)

I. Other Statutes

1. Outer Continental Shelf Lands Act- During time of war, the United States has the right of first refusal to purchase all or any part of any mineral produced from the Outer Continental Shelf at market price. 43 U.S.C. 1341(b).

Miscellaneous statutes which apply to all situations are discussed at the end of this Appendix.

Authorities Lacking in Event of War

The President does not have unlimited powers to allocate crude oil or other petroleum products within the civilian market. However, the Defense Production Act gives him such allocation authority, when defense needs seriously affect the civilian market. It is unclear whether he may impose price controls on the oil products allocated under the DPA. He has authority to establish demand restraint measures and crude oil production at a temporary emergency rate during a severe energy supply interruption, which may or may not exist during a war situation.

II. International Tensions that Threaten to Impair the National Security

A. Allocation and Price Controls of Petroleum Products

1. Defense Production Act-

(a) General Allocation- The President has authority to allocate materials, including petroleum products, when necessary or appropriate to promote the national defense. 50 U.S.C. App. § 2071(a). National security includes national defense and military preparedness, which are the key concerns of the DPA. However, he may control the general distribution of a material in the civilian market only if he finds that (1) the material is a "scarce and critical material essential to the national defense" and (2) defense needs cannot be met without causing "significant dislocation" and "appreciable hardship" in the civilian market. 50 U.S.C. App. § 2071(b). It is unclear whether the President has authority to impose price controls on the petroleum products so allocated.

(b) Enhancing Domestic Energy Supplies- The Defense Production Act also contains a provision allowing the President to allocate supplies of materials and equipment to maximize domestic energy supplies under certain carefully defined circumstances. 50 U.S.C. App. § 2071(c). This section is not limited only to defense-related activities as are the other parts of the DPA. It is available to the President, if he can make certain findings regarding the scarcity and essentiality of the supplies of materials and equipment. The term materials includes "raw materials" and "products". This provision may arguably authorize the allocation of petroleum products to enhance domestic energy supplies.

2. International Emergency Economic Powers Act- The President may control property which is subject to United States jurisdiction and in which a foreign country or national has an interest. The President must first declare a national emergency due to an unusual and extradordinary threat, at least partly outside the United States, to the national security. The legislative history discloses that the statute is to regulate international economic transactions and not purely domestic ones. 50 U.S.C. § 1702. (The statute closely resembles the Trading With the Enemy Act, which applies only in wartime.)

B. Import and Export Controls

1. International Emergency Economic Power Act- See II.A.2. above.

2. Export Administration Act- The President may establish export controls over any goods and technology to further the foreign policy interests of the United States and to protect the U.S. economy from the drain of scarce resources. 50 U.S.C. App. § 2406. Certain limitations are placed on the export of refined petroleum products, 50 U.S.C. App. § 2406(e) and on Alaskan crude oil transported by pipeline over Federally-granted rights of way, 50 U.S.C. App. § 2406(d). (Separate statutes make the provisions of the EAA applicable to (i) petroleum products from the Naval Petroleum Reserves, 10 U.S.C. § 7430(e); (ii) oil and gas from the Outer Continental Shelf, 43 U.S.C. § 1354(a); and (iii) crude

oil transported over Federally-granted rights of way, 30 U.S.C. § 185u).

3. Trade Expansion Act- The President has authority to adjust the imports of a particular commodity which threatens the national security. The Secretary of Commerce must find that a particular article or commodity is entering the United States under such circumstances and in such quantity to threaten to impair the national security. Such a finding may reflect the need to have sufficient domestic production and industrial capacity to meet U.S. defense requirements. 19 U.S.C. § 1862(b). Measures the President adopts must have an initial and direct effect on the imported commodity.

4. Energy Policy and Conservation Act- The President may restrict exports of energy supplies, including petroleum products, and materials or equipment related to energy production and utilization to carry out the purposes of the Act. He is required to use this authority to establish restrictions on the export of crude oil and natural gas produced in the United States. (The President may exempt from such restrictions certain exports which are consistent with the national interest and the Act's purposes. He must also consider the national interest as it relates to certain kinds of transactions.) 42 U.S.C. § 6212.

The trigger for the use of this authority is not "international tensions that threaten national security." However, this authority may be available to the President in such an event.

C. Personnel Authorities

1. Defense Production Act- National security is really a part of national defense and military preparedness, which are the key concerns of the DPA.

(a) Outstanding Individuals- The President may employ persons of outstanding experience and ability to serve without compensation in advisory positions in government when such employment is related to national defense and national defense preparedness. This authority is subject to several limitations, including: (1) no other person is available for the position on a full-time salaried basis; (2) the person selected has the outstanding experience and ability required by the job; and (3) the individual cannot be appointed to a policy-making post. 50 U.S.C. App. § 2160(b). Federal conflict of interest and anti-trust laws are applicable to the activities of such persons.

(b) Executive Reserve- The President may establish and train an Executive Reserve for employment in government during "periods of emergency" that "would adversely affect the defense preparedness of the United States." 50 U.S.C. App. § 2062 and 2160(e).

(c) Voluntary Agreements- The President has authority to approve voluntary agreements among private parties to develop defense preparedness programs and to expand productive capacity and supply beyond civilian needs. A precondition for his approval is a Presidential finding that conditions exist which may be a direct threat to U.S. national defense and its preparedness programs. The Attorney General must indicate that the purpose of the agreement cannot be achieved without any agreement or by an agreement with less anti-competitive effects. An anti-trust defense is available only for domestic activities to develop or carry out such an agreement. 50 U.S.C. App. § 2158. Such a defense is not available under the authority for voluntary agreements to carry out the International Energy Program or other international arrangements relating to petroleum products to which the U.S. is a party. 50 U.S.C. App. § 2158a(o).

2. Foreign Assistance Act- An agency of the United States may furnish assistance, services and commodities to friendly countries on an advance-of-funds or reimbursement basis when the President determines that this will be consistent with and in furtherance of the purposes of the Foreign Assistance Act. Such assistance, services and commodities must help to promote international economic and political stability. 22 U.S.C. § 2346, § 2357, and § 2393.

D. Demand Restraint Measures-

1. Energy Policy and Conservation Act and the Emergency Energy Conservation Act of 1979- With respect to international tensions threatening national security, no statute included in the Department of Justice memorandum of law covers this category. However, the demand restraint measures provided in these statutes may be available.

memorandum of law covers this category. However, the demand restraint measures provided in these statutes may be available.

Demand restraint measures in both statutes may be utilized in connection with severe energy supply interruptions (or the United States obligations under the International Energy Program). This term is defined in a similar manner in each statute. It refers to a national energy supply shortage, which, among other things, the President determines may have a major adverse impact on national security ("national safety" is the term used in EPCA) and which may likely result from interruption in the supply of imported petroleum products.

These conditions might be satisfied when the United States faces a serious international crisis. The Department of Justice memorandum fails to include both of these statutes in its list of laws which provide the President with authority during war, international tensioning threats national security and other Presidentially declared emergencies.

EPCA provides authority for the President to establish energy conservation contingency plans to restrict public and private use of energy. 42 U.S.C. §§ 6261 and 6262. EECA grants the President authority to establish energy conservation targets and to approve State plans to carry out demand restraint measures to reach them. 42 U.S.C. §§ 8511-8513.

E. Priority for Contracts, Orders and Supplies Relating to Petroleum Products

1. Defense Production Act- The President may require that contracts or orders necessary or appropriate to promote the national defense take priority over performance under any other contracts or orders. "National security" is really a part of national defense and military preparedness, which are the key concerns of this statute. The same limitations that apply to the President's authority to allocate materials attach to this authority. (See the discussion in II A.1(a) above.) 50 U.S.C. App. §2071(a).

F. Increasing Domestic Crude Oil Production-

1. Naval Petroleum Reserves Production Act- The President approves the Secretary of Energy's finding that oil production from the Naval Petroleum Reserves is needed for the national defense; but actual production must be authorized by a joint resolution of Congress, 10 U.S.C. § 7422(b)(2). (A temporary emergency rate of production could be approved under this authority to produce for the national defense.)

2. Energy Policy and Conservation Act- The statute assigns to the President authority to order production at the maximum efficient rate (MER) and the temporary emergency rate on Federal lands and under certain circumstances in States. 42 U.S.C. § 6214. However, with the exception of MER production on Federal lands, the event that triggers this authority is a severe energy supply interruption. The definition of the term and its appropriate use during international tensions threatening national security has been previously discussed under II.D.1. above.

G. Petroleum Reserves

1. Energy Policy and Conservation Act- The President has authority to establish a Strategic Petroleum Reserve which may be utilized during severe energy supply interruptions (and to meet the United States obligations under the International Energy Program). 42 U.S.C. § 6241. See discussion in II.D.1. above.

H. Establishment and Maintenance of Energy Related Facilities

1. Federal Power Act

(a) Physical Connection of Facilities- The Federal Energy Regulatory Commission may, pursuant to an application, or on its own motion, order the physical connection of any cogeneration facility, small power production facility or transmission facilities with the facilities of another electric utility. 16 U.S.C. § 824i. This authority is available to the Commission at all times and not only in the event of a national security emergency.

(b) Wheeling of Power- FERC may order any electrical utility to provide transmission services, including enlarging transmission capacity, to another utility, geothermal power producer or power marketing agency. 16 U.S.C. 824j. (This authority is available to the FERC under all circumstances.)

2. Magnuson Act- The President has authority to safeguard from destruction, loss or injury vessels, harbors and ports, and waterfront facilities and to govern the movement of foreign vessels in U.S. waters. The President must find that that security of the United States is endangered by reason of disturbances or threatened disturbances of U.S. international relations. 50 U.S.C. § 191.

I. Other Statutes

No specific statutes fall under this category. Miscellaneous statutes which apply in all situations are discussed at the end of this Appendix.

Authorities Lacking During International Tensions Affecting National Security

The President does not have unlimited powers to allocate crude oil or other petroleum products within the civilian market. However, the Defense Production Act gives him such allocation authority, when defense needs seriously affect the civilian market. It is unclear whether he may impose price controls on the oil products allocated under the DPA. He may establish demand restraint measures and crude oil production at a temporary emergency rate during a severe energy supply interruption which may or may not exist during a period of international tensions affecting national security.

III. Other Presidentially Declared Emergencies

This section of the Appendix refers to statutes requiring a Presidential declaration of emergency in events or situations not covered under Sections I and II of this Appendix. Presidential declarations of emergency are different from Presidential findings of an emergency or emergency conditions. (In this connection, see the National Emergencies Act. 50 U.S.C. § 1601 et seq.) For these reasons, only two statutes are listed which specifically require a Presidential declaration of emergency. Both of them, the International Emergency Economic Powers Act and the Magnuson Act, have been previously included in Section II.

A. Allocation and Price Control of Petroleum Products

1. International Emergency Economic Powers Act- The President may control property which is subject to United States jurisdiction and in which a foreign country or national thereof has an interest. The President must first declare a national emergency due to an unusual and extraordinary threat, at least partly outside the United States, to United States foreign policy or its economy. The legislative history discloses that the statute is to regulate international economic transactions and not purely domestic ones. (The statute closely resembles the Trading With the Enemy Act, which applies only in war time.)

B. Import and Export Controls

1. International Emergency Economic Powers Act- (See the discussion in III A.1 above.)

Note: Neither the Export Administration Act, the Trade Expansion Act nor the Energy Policy and Conservation Act restrictions on imports and exports are triggered through a Presidential declaration of emergency. (For more informaton see B. in sections I and II above.)

C. Personnel Authorities

None. The Defense Production Act is not activated through a Presidential declaration of emergency. However, situations that lead the President to declare a Presidential emergency may also amount to "periods of emergency" during which the Executive Reserve can be employed. 50 U.S.C. App. § 2160(e).

D. Demand Restraint Measures

None. Neither the Energy Policy and Conservation Act nor the Emergency Energy Conservation Act require a Presidential declaration of emergency to be utilized. However, under EPCA, the President must determine that a severe energy supply interruption is, or is likely, to be of an emergency nature. 42 U.S.C. § 6202(8)(A). (The same term under EECA does not require such a determination.)

E. Priority of Contracts Orders, Supplies Relating to Petroleum Products

None. Only section 101 of the Defense Production Act, 50 U.S.C. App. § 2071, authorizes the President to require priority performance under certain contracts or orders. This statutory authority may be used by the President even in nonemergencies and does not require a Presidential declaration of an emergency to be activated.

F. Increasing Domestic Crude Oil Production

None. The surge production provisions of neither the Naval Petroleum Reserves Production Act nor the Energy Policy and Conservation Act is triggered by a Presidential declaration of emergency. 10 U.S.C. § 7422(b)(2) and 42 U.S.C. § 6214. (See also the discussion in D. above.)

G. Petroleum Reserves

None. The President has authority under the Energy Policy and Conservation Act to establish a Strategic Petroleum Reserve which will be utilized during severe energy supply interruptions (and to meet the United States obligations under the International Energy Program). (See also the discussion in D above.)

H. Establish and Maintain Energy-related Facilities

1. Magnuson Act- The Secretary of Transportation has authority to govern the movement of any vessel, foreign or domestic, in U.S. waters and to prevent any damage or injury to U.S. harbors and waters. The President must declare a national emergency by reason of threatened war, insurrection or invasion, or of a disturbance or a threatened disturbance of U.S. international relations. 50 U.S.C. § 191.

2. Federal Power Act- None. The Federal Energy Regulatory Commission's authority with respect to the physical connection of electrical facilities, 16 U.S.C. § 824i, and the wheeling of power, 16 U.S.C. § 824j, do not require a Presidential declaration of emergency to be utilized.

I. Other statutes

None of the other statutes mentioned in the Department of Justice's memorandum of law are triggered through a Presidential declaration of national emergency. (However, it is interesting to note that under the Clean Air Act, the President can be asked to determine that a national energy emergency exists that justifies the suspension of a State implementation plan.) 42 U.S.C. § 7410(f).

A discussion of miscellaneous statutes applicable to all situations is found at the end of the Appendix.

Authorities Lacking During Other Presidentially Declared Emergencies

For the most part, Presidential authorities to deal with severe energy supply interruptions or other substantial reductions in the amount of petroleum products available in the United States are not triggered through Presidential declarations of national emergency. Only two of the statutes discussed in the memorandum are so activated, the International Emergency Economic Powers Act and the Magnuson Act. This means that most of the significant legislation discussed in the Department of Justice memorandum--*e.g.*, the Defense Production Act and the Energy Policy and Conservation Act--are not limited by the procedures of the National Emergencies Act which applies only to Presidentially-declared emergencies. Under this statute, Congress sought to check Presidential power by imposing limits on Presidentially declared emergencies: (1) Congress is required to consider terminating the emergency every six months and (2) emergencies terminate automatically after one year unless extended. In the case of EPCA, Congress can check Presidential power through its approval of contingency conservation plans and amendments to plans for the Strategic Petroleum Reserve.

IV. International Energy Program[1]

A. Allocation and Price Controls of Petroleum Products

1. Energy Policy and Conservation Act

(a) International Allocation- Under section 251 of EPCA the President, by rule, may authorize and, if necessary, order international allocation of petroleum products by companies participating in the Voluntary Agreement and subject to the jurisdiction of the United States, in such amounts and at such prices as may be necessary to fulfill our obligations under the International Energy Program. 42 U.S.C. § 6271. Use of this authority is limited to international energy supply emergencies and may be invoked only after the activation of the International Energy Agency's emergency sharing system, which requires an IEA group or single member country petroleum shortfall of 7 percent or more when compared with the consumption needs in a base period of the previous four quarters of a year. The Departments of Justice and Energy contend that section 251 also provides authority for limited domestic allocation of petroleum to facilitate voluntary industry participation in the international allocation system by insuring a "fair sharing" of the allocation burden among participating U.S. companies. There is considerable opposition within the petroleum industry and among some major petroleum users to use of section 251 as authority for any domestic allocation. Litigation would probably result if section 251 were used for this purpose.

(b) Voluntary Allocation- Pursuant to the rule transmitted by the President to the Congress under section 251 of EPCA, 42 U.S.C. § 6271, U.S. companies, through the the International Energy Agency, may voluntarily allocate oil internationally among IEA member countries with the protection of a limited antitrust defense and a breach of contract defense under section 252 of EPCA, 42 U.S.C. § 6272, as long as company actions are undertaken to carry out a Government-approved voluntary agreement or plan of action and are not undertaken for the purpose of injuring competition. 42 U.S.C. § 6272.

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[1] For an explanation of different treatment given to IEP see the Introduction.

(c) Strategic Petroleum Reserve Allocation- Under section 161 of EPCA the Secretary of Energy may, by rule, provide for the allocation of any petroleum product withdrawn from the Strategic Petroleum Reserve in amounts and at prices specified in such rules. This must be preceded by a Presidential finding that implementation of the Distribution Plan of the Strategic Petroleum Reserve Plan is required by obligations of the United States under the International Energy Program. 42 U.S.C. § 6241.

B. Import and Export Controls

1. Energy Policy and Conservation Act- Subsection 251(d) of this statute provides that neither (1) the Presidential rule prohibiting the export of crude oil requiredby section 103 of the statute, 42 U.S.C. § 6212, nor (2) subsection 28(u) of the Mineral Leasing Act of 1920, 30 U.S.C. § 185(u), shall preclude the allocation and export to other countries of petroleum products produced in the United States, if the President, by rule, determines that such actions are necessary for implementation of the obligations of the United States under the International Energy Program. 42 U.S.C. § 6271(d).

2. Export Administration Act of 1979- Subsection 7(d)(3) of this statute authorizes the export of oil to any country pursuant to the International Emergency Oil Sharing Plan of the International Energy Agency, notwithstanding the prohibitions contained in other provisions of section 7 on the export of domestically produced crude oil transported by pipeline under the Trans-Alaska Pipeline Authorization Act or any other provision of law. 50 U.S.C. App. § 2406(d)(3).

C. Personnel Authorities

None.

D. Demand Restraint Measures

1. Energy Policy and Conservation Act- Sections 201 and 202 of the statute authorize the President to activate any standby energy conservation contingency plan, previously transmitted to the Congress and approved by each House of Congress, in order to fulfill obligations of the United States under the International Energy Program. 42 U.S.C. §§ 6261 and 6262.

respect to any energy source, that actions to restrain domestic energy demand are required in order to fulfill the obligations of the United States under the International Energy Program, he may establish monthly emergency conservation targets for any such energy source for the Nation generally, for each State, and for Federal agencies. 42 U.S.C. § 8511. Thereafter Federally-approved State emergency conservation plans and/or the standby Federal conservation plan are activated to meet or exceed the emergency conservation targets.

E. Priority for Contracts, Orders and Supplies Relating to Petroleum Products

None.

F. Increasing Domestic Crude Oil Production

None.

G. Petroleum Reserves

1. Energy Policy and Conservation Act- Section 161 of this statute authorizes the drawdown and distribution of petroleum from the Strategic Petroleum Reserve after the President has found that implementation of the Distribution Plan of the Strategic Petroleum Reserve Plan is required by obligations of the United States under the International Energy Program. 42 U.S.C. § 6241.

H. Establishment and Maintenance of Energy-Related Facilities

None.

I. Other Statutes

None.

Authorities Lacking With Respect to the International Energy Program

The President lacks clear statutory authority to implement even a limited program of domestic allocation of petroleum. Such a program may be necessary to facilitate voluntary industry participation in the international oil allocation system by insuring a "fair sharing" of the allocation burden among U.S. companies participating in the Voluntary Agreement.

V. Less Severe Events and Situations

The statutes originally listed under this heading in the Department of Justice memorandum have been placed into two groups which will explain the circumstances in which they would be utilized. These groups are: (1) severe energy supply interruptions and (2) authorities with respect to other energy resources.

i. Severe Energy Supply Interruptions

Thw term "severe energy supply interruption" is defined in a similar way under both the Energy Policy and Conservation Act and the Emergency Energy Conservation Act, although the EECA definition is broader. The latter encompasses all energy sources and all types of U.S. energy supply interruptions, including supplies of imported petroleum products. The former's definition is closely tied to petroleum import interruptions. Under both statutes, a severe energy supply interruption is a national energy supply shortage (1) of significant duration and scope, (2) which may cause adverse impact on national security or the national economy, and (3) results from an interruption in the supply of imported petroleum products or from sabotage or an act of God.

A. Allocation and Price Controls of Petroleum Products

1. Energy Policy and Conservation Act- Under section 161 of the statute the Secretary of Energy may, by rule, provide for the allocation of any petroleum product withdrawn from the Strategic Petroleum Reserve in amounts and at prices specified in such rules. This must be preceded by a Presidential finding that implementation of the Distribution Plan of the Strategic Petroleum Reserve Plan is required to ameliorate a "severe energy supply interruption." 42 U.S.C. § 6241.

2. Powerplant and Industrial Fuel Use Act- During a severe energy supply interruption, as defined by the Energy

Policy and Conservation Act, the President may (1) allocate coal for the use of any power plant or major fuel burning installation. 42 U.S.C. § 8374(a), and (ii) prohibit the use of petroleum (or natural gas) as a primary energy source by an electric power plant or a major fuel burning installation. 42 U.S.C. § 8374(b).

(Note: The Defense Production Act contains a provision allowing the President to allocate supplies of materials and equipment to maximize domestic energy supplies under certain carefully defined circumstances. 50 U.S.C. App. § 2071(c). This section is not limited only to defense-related activities as are the other parts of the DPA. It is available to the President, if he can make certain findings regarding the scarcity and essentiality of the supplies of materials and equipment. The term materials includes "raw materials" and "products". This provision may arguably authorize the allocation of petroleum products to enhance domestic energy supplies.)

B. Import and Export Controls of Petroleum Products

1. Energy Policy and Conservation Act- The President may restrict exports of energy supplies, including petroleum products, coal, and gas and materials or equipment related to energy production and utilization to carry out the purposes of the Act. He is required to use this authority to establish restrictions on the export of crude oil and natural gas produced in the United States. (The President may exempt from such restrictions certain exports which are consistent with the national interest and the statutes purposes. He must also consider the national interest as it relates to certain kinds of transactions.) 42 U.S.C. § 6212.

Although the basis for restricting exports is not a severe energy supply interruption, this authority would be available in that circumstances.

C. Personnel authorities

No specific authorities to employ or hire individuals, as under the Defense Production Act, are available to deal with severe energy supply interruptions. The statute's personnel authorities only apply in defense related situations. 50 U.S.C. App. §§ 2158 and 2160(b) and (e). Thus, the Executive Reserve could only be activated in defense-related emergencies.

D. Demand Restraint Measures

1. Energy Policy and Conservation Act- The President has authority to establish energy conservation contingency plans to restrict the public and private use of energy. The plans would become operative during a severe energy supply interruption which under the statute would, in most instances, be a situation resulting from an imported oil shortage. 42 U.S.C. §§ 6261 and 6262.

2. Emergency Energy Conservation Act- The President has authority to set monthly energy conservation targets with respect to an energy source for which a severe energy supply interruption exists. Energy sources may include oil, as well as gas, coal, and electricity. The statute is thus broader in scope than the Energy Policy and Conservation Act. 42 U.S.C. §§ 8511-8513.

3. Powerplant and Industrial Fuel Use Act- The President may prohibit the use of petroleum or natural gas as a primary energy source by any electric power plant or major fuel burning installation. 42 U.S.C. § 8374(b).

E. Priority for Contracts, Orders and Supplies Relating to Petroleum Products

None.

(Note: The Defense Production Act also contains a non-defense related provision giving the President the authority to require the priority performance of contracts and orders concerning supplies of equipment and materials in order to maximize domestic energy supplies. 50 U.S.C. App. § 2071(c). See Note on this statute in paragraph A above.)

F. Increasing Domestic Crude Oil Production

1. Energy Policy and Conservation Act- This statute assigns to the President authority to order production of oil

and gas on Federal lands at the temporary emergency production rate during a severe energy supply interruption. Under certain circumstances, he may require production at both this rate and the maximum efficient rate of production from wells in States during such an interruption. The statute does not apply to the Naval Petroleum Reserves. 42 U.S.C. § 6214.

G. Petroleum Reserves

1. Energy Policy and Conservation Act- The President has authority to establish a Strategic Petroleum Reserve which may be utilized during periods of severe energy supply interruptions. 42 U.S.C. § 6241.

H. Establish and maintain energy-related facilities

None.

(Note: The Defense Production Act provides for allocation and priority performance of contracts and orders of materials and equipment to maximize domestic energy supplies in non-defense related situations. This includes authority with respect to supplies of materials and equipment essential to the construction and maintenance of energy facilities. 50 U.S.C. App. § 2071(c). See discussion at A and E above.)

I. Other statutes

See discussion of miscellaneous statutes at end of this Appendix.

Authorities Lacking During Severe Energy Supply Interruptions

The President lacks general allocation and price control authority in such situations. (However, a non-defense related provision of the DPA may provide authority to allocate oil in order to maximize domestic energy supplies.) Import control authority would probably make no sense since severe energy supply interruptions in most situations will be caused by import shortages. The President does not have the authority (a) to activate the Executive Manpower Reserve to cope with these situations, and (b) to require priority for contracts, orders and supplies of petroleum products, since the DPA only applies to defense-related situations.

ii. Authorities with respect to other energy resources

This subsection groups various other statutory authorities affecting non-petroleum energy resources which might be available when the supply of available petroleum is substantially reduced. It follows the scheme utilized elsewhere in the Appendix.

A. Allocation and Price controls

1. Natural Gas Policy Act- The President has authority to allocate supplies of natural gas during any natural gas supply emergency. The President may declare such an emergency, if a severe natural gas shortage exists or is imminent in the United States or any region thereof which endangers the gas supply for high priority users and other alternatives have been exhausted. 15 U.S.C. §§ 3361 and 3363. (Note: This authority may be of little help during most petroleum product shortages unless it also coincides with, or causes, a severe natural gas shortage.)

2. Defense Production Act- Section 101(c) of the DPA, 50 U.S.C. App. § 2071(c), would allow the President to allocate supplies of materials and equipment in order to maximize the production of coal, natural gas or electricity ("energy supplies") during a serious petroleum product shortage. Gas and electricity could also be allocated as materials to maximize coal, gas and electricity production. This section is not limited to defense-related activities as are other parts of the DPA. It is available to the President if he can make certain findings regarding the scarcity and essentiality of the materials and equipment.

3. Federal Power Act- See also discussion of Federal Power Act authorities under H.2 below.

B. Import and Export Controls

1. Natural Gas Act- Under section 3 of the Natural Gas Act, exports and imports of natural gas may be barred when not consistent with the public interest. 15 U.S.C. § 717b.

2. Federal Power Act- The Secretary of Energy has authority to decline to issue an order for the transmission of electricity to a foreign country when it would impair the sufficiency of electrical supplies in the U.S. 16 U.S.C. § 824a(e).

C. Personnel Authorities

None.

(Note: the authorities available under the Defense Production Act can only be utilized in the defense-related situations. 50 U.S.C. App. § 2160(b) and (e).

D. Demand Restraint Measures

1. Public Utility Regulatory Policies Act- Under Section 607 of this statute the President may prohibit the burning of natural gas by any electrical power plant or major fuel-burning installation which has the capability to burn petroleum products. This authority is only available after the President has declared a natural gas supply emergency, which is defined similarly to such an emergency under the Natural Gas Policy Act. 15 U.S.C. § 717z. As indicated in connection with the discussion of this statute in A. above, the use of this authority may be of limited value in oil shortage situations.

E. Priority Contracts, Orders, and Supplies

1. Defense Production Act- Section 101(c) of the DPA, 42 U.S.C. § 2071(c), gives the President authority to require the priority performance of contracts or orders concerning supplies of equipment and materials to maximize domestic energy supplies. (See discussion of this statute at A. above.)

2. Natural Gas Policy Act- During any Presidentially declared natural gas emergency, the President may authorize any interstate pipeline or local distribution company served by an interstate pipeline to contract for the purchase of supplies of natural gas and may require a pipeline to transport such gas. But, this authority is of limited use in petroleum product shortages. (See the discussion in A. above.) 15 U.S.C. § 3362.

F. Increasing Domestic Energy Production

1. Energy Policy and Conservation Act (Gas)- The President may require natural gas to be produced at the maximum efficiency rate (MER) on Federal lands. Under certain circumstances, he can order the production of natural gas at the temporary emergency rate (TER) on Federal land and at the MER and TER from non-Federal fields. 42 U.S.C. § 6214. (With respect to the Naval Petroleum Reserves, natural gas is included within the definition of petroleum 10 U.S.C. § 7420(3). See discussion at I.F.1.)

2. Federal Power Act (Electricity)- The Secretary of Energy, may, during an emergency, order, on its motion, a temporary inter-connection of facilities and such generation, delivery, interchange, or transmission of electricity, provided that it will meet the public interest. (Such an emergency could be caused by a sudden increase in demand for electricity brought about by an oil shortage.) 16 U.S.C. § 824a(c).

(Note: The Justice Department memorandum contains no statutory provision giving the President authority to order an increase in the production of coal.)

G. Energy Reserves

The Department of Justice memorandum contains no statutory provisions which give the President authority to establish a public or private reserve for gas,coal or electricity or other energy source. Under the Energy Policy and Conservation Act, the Administrator of the Federal Energy Administration was to submit a report on natural gas and coal reserves. 42 U.S.C. § 6238.

H. Establish and Maintain Energy-Related Facilities

1. Natural Gas Act- The Federal Energy Regulatory Commission has authority to order natural gas companies to construct or extend facilities so that gas can be sold to local distribution companies. 15 U.S.C. § 717f.

(a) Temporary connection and exchange of facilities- See F.2. above.

(b) Physical connection of facilities- The Federal Energy Regulatory Commission may, on its own motion, order the physical connection of any cogeneration facility, small power production facility or the transmission facilities of any electric utility with another utility, Federal power-marketing agency (BPA), etc. 16 U.S.C. § 824i.

(c) Wheeling of power- FERC may order any electrical utility to provide transmission services, including enlarging transmission capacity, to another utility, geothermal power producer, or power marketing agency. 16 U.S.C. 824j.

I. Other Statutes

We encountered no statutes in the memorandum of law that could be discussed here. Also, see the miscellaneous statutes applicable in all situations at the end of this Appendix.

Authorities Lacking to Cope with Petroleum Product Shortages

As a general rule, the President lacks broad authority to allocate gas and electricity during oil emergencies. He may allocate coal, if there is a severe energy supply interruption. If an oil emergency coincides with an gas emergency, he may be able to allocate gas under the Natural Gas Policy Act. Under the Federal Power Act, some electricity allocation may take place. Coal and gas exports can be halted under the Energy Policy and Conservation Act.

Miscellaneous Statutes

Several statutes included in the Department of Justice memorandum would be available under each situation described in Appendix A and do not fit under any of the types of authority the President has. However, in one instance, one of these statutes has been included under the "other statutes" heading because it could also become operative on the basis of the particular situation, i.e. the Outer Continental Shelf Lands Act which is available "during time of war". The following statutes are available under each situation:

1. Outer Continental Shelf Lands Act- The President, whenever he prescribes, may purchase at market price all, or any part, of the production of any mineral from the Outer Continental Shelf. 43 U.S.C. § 1341(b).

2. Minerals Lands Leasing Act- The Secretary of the Interior may demand that royalties accruing to the United States under an oil and gas lease be paid in kind. 30 U.S.C. § 192.

3. Clean Air Act- Upon determining that a national or regional energy emergency exists, the President may temporarily suspend or modify a states air pollution control program. The Governor of the concerned state must petition for such a change. 42 U.S.C. § 7410(f).

4. Interstate Commerce Act-

(a) Temporary Transportation Authority- The Interstate Commerce Commission has the authority to grant a motor carrier of property or a water carrier temporary authority to provide transportation to a place which has no such carrier capable of meeting its needs. This Section would permit such carriers to move petroleum products on a temporary basis. 49 U.S.C. § 10928.

(b) Priority Rail Movement- The Commission may give a priority order for the rail movement of particular commodities when a failure in traffic movement creates an emergency situation having a substantial adverse effect on United States rail service in the U.S. or a substantial region of the country. 49 U.S.C. § 11123.

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

B-210236

The Honorable James A. McClure
Chairman, Committee on Energy and
Natural Resources
United States Senate

Dear Mr. Chairman:

In your August 11, 1982 letter, you asked that we monitor and analyze documents to be prepared by the administration under the Energy Emergency Preparedness Act of 1982. Specifically, you requested that we analyze the "Comprehensive Energy Emergency Response Procedures" issued by the President on December 31, 1982. This report responds to that request.

This report is also being sent today to the Chairman, Subcommittee on Energy and Mineral Resources, Senate Committee on Energy and Natural Resources; Senator Henry M. Jackson; and Senator Bill Bradley.

Sincerely yours,

J. Dexter Peach
Director

REPORT BY THE U.S.

General Accounting Office

Analysis Of The Comprehensive Energy Emergency Response Procedures Report

The Energy Emergency Preparedness Act of 1982 required the President to submit a series of reports to the Congress, including one detailing "comprehensive energy emergency response procedures." The comprehensive procedures report was to describe options the President would consider using in an emergency, specify how potential response actions would be selected and implemented, and recommend additional laws that the President may need to deal with an emergency.

GAO's evaluation of the report was requested by the Chairman and several members of the Senate Committee on Energy and Natural Resources. This is the last of a series of GAO reports analyzing various report submissions made under the act. GAO notes that

- --the comprehensive procedures report lacks the desired specificity in describing options to be considered and the procedures to implement them and
- --key parts of the administration's energy emergency preparedness programs are still not ready.

17 FEB 1983

GAO/RCED-83-106

REPORT BY THE UNITED STATES
GENERAL ACCOUNTING OFFICE

ANALYSIS OF THE COMPREHENSIVE ENERGY EMERGENCY RESPONSE PROCEDURES REPORT

DIGEST

The Energy Emergency Preparedness Act of 1982 (EEPA) committed the United States Government to develop programs to respond to energy emergencies. The objective of these programs is to mitigate the adverse impacts such emergencies can have on the Nation.

To assist in accomplishing this objective, EEPA required the President to submit to the Congress a "comprehensive energy emergency response procedures" report (procedures report) detailing how the administration would respond to a severe energy emergency. The act required the procedures report to: (1) describe the various options the President would consider using to respond to such an emergency, including a description of the likely sequence in which such options would be implemented, (2) specify how response actions would be selected and implemented, particularly who would select and implement these actions and what procedures would be used, and (3) recommend any additional laws that the President may need to respond to a severe energy emergency.

The Chairman and several members of the Senate Committee on Energy and Natural Resources asked GAO to analyze this document and several others mandated by EEPA within 6 weeks of their transmittal to the Congress. [1]

SUMMARY OF FINDINGS

In GAO's view, the emergency response options available to the President are inadequately detailed in the procedures report and some face implementation problems. Among GAO's specific concerns:

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[1] GAO has issued two reports analyzing other administration documents required by EEPA: "Status of the Administration's Implementation of the Energy Emergency Preparedness Act of 1982," GAO/RCED-83-33, Oct. 8, 1982; and "Analysis of the Strategic Petroleum Reserve Drawdown Plan and the Strategic Petroleum Reserve Drawdown and Distribution Report," GAO/RCED-83-85, Jan. 3, 1983.

- --Key programs, notably the Strategic Petroleum Reserve (SPR), Emergency Executive Manpower Reserves, and some International Energy Agency programs face major implementation problems.
- --Key policy issues in some program areas (for example, coordination of Federal and State policies and programs) are not adequately resolved.
- --Some key issues, such as the role of private stocks, are barely discussed or are omitted altogether.

In addition, the procedures report does not demonstrate that reliable emergency response procedures are available to implement the above options. Specifically:

- --The descriptions of the roles of decision-makers, and those implementing their actions, lack necessary detail. As a result, the procedures to be followed within the Department of Energy and other organizations and among agencies are not clear.
- --Many of the procedures have not yet been fully developed.

EMERGENCY RESPONSE "OPTIONS" ARE INADEQUATELY DETAILED AND SOME FACE IMPLEMENTATION PROBLEMS

The procedures report's descriptions of the emergency response options available to the President contain little detail on either program content or status. One cannot rely on these brief descriptions alone to determine whether the programs are effective or if deadlines for individual program elements are being met. Key programs and issues include the SPR, the Emergency Executive Manpower Reserves, international energy programs, possible Federal preemption of State laws and regulations, and private oil stocks.

The Strategic Petroleum Reserve

GAO's primary concern about the SPR is that the administration has not adequately planned for its use. In its report of January 1983 on two administration SPR planning documents required by EEPA, GAO concluded that neither document "provides much specific information about the conditions in which SPR oil could be used in an emergency, including the amount, rate, and timing of its use." Neither these documents nor the procedures report deal with important policy questions, such as the possibility that some SPR oil might not be used to alleviate a shortage after it is sold. It is conceivable that buyers, anticipating rising oil prices during an emergency, may choose to hold onto the oil to earn extra profits. This was observed in the 1979 Iranian oil supply interruption. (See pp. 5 to 9.)

Emergency Executive Manpower Reserves

This program is intended to develop and maintain the capability to quickly augment Department of Energy staff during energy emergencies with experienced industry personnel. While Government use of industry expertise can be particularly useful during energy emergencies, several legal constraints preclude effective use of the reserves during energy emergencies at the present time. First, the reserves could be activated only in an energy emergency that would adversely affect the national defense of the United States. Second, reservists who serve or advise Federal officials during an emergency are subject to general conflict-of-interest laws and to additional civil provisions of the Department of Energy Organization Act. Third, participation of industry officials in the program may expose their companies to antitrust risks. The procedures report acknowledges that conflict-of-interest and antitrust problems have discouraged this type of industry participation in past energy supply interruptions.

There are no current plans to submit specific legislative proposals to alleviate these legal obstacles. Until these issues are resolved, the Emergency Executive Manpower Reserves may not be available for use during an energy emergency. (See pp. 9 to 11.)

International energy programs

The procedures report addresses international energy programs by broadly describing several programs relating to U.S. obligations as a member of the International Energy Agency and the North Atlantic Treaty Organization (NATO). Little detail is given on the content and status of these programs. Many appear to be under development, but target dates for important milestones are sometimes not included.

In addition, recent GAO work in this area shows that the Government lacks effective procedures under which U.S. oil companies may participate in the International Energy Agency Emergency Sharing System with limited antitrust protection during an actual emergency; there are no standby demand restraint programs in place which may be needed to comply with International Energy Agency requirements; and there are differences among Agency member countries over prices charged for oil shared under the Emergency Sharing System. In addition, GAO is reviewing possible coordination problems in an energy emergency because of U.S. treaty commitments under the International Energy Agency and NATO activities. (See pp. 11 to 14.)

Potential conflicts between Federal and State laws and policies

A key problem only briefly discussed in the procedures report is the potential for individual States enacting their own petroleum product allocation and pricing laws and other regulatory measures. Such action would conflict with planned Federal reliance on the free market. At one point, the procedures report states that in a "severe" emergency, "The Federal Government * * * may attempt to dissuade the States from taking regulatory actions which conflict with the Federal market strategy." The procedures report does not, however, discuss possible measures the Federal Government could use to "dissuade" the States from enforcing such actions.

For example, the report does not address the difficulty and consequences of litigating, in emergency circumstances, the principles of Federal Government preemption of State allocation and price controls. (See pp. 15 to 16.)

Private oil stocks

The procedures report asserts that private oil stocks would play a major role in coping with oil supply disruptions and that private and Government stocks currently provide substantial protection against such disruptions. However, the report does not specify the role of private oil stocks in an emergency nor does it acknowledge that these stocks have declined substantially from their peak levels in mid-1980. It is also not clear whether industry would in fact draw down stocks, and the report does not specify how the Government would assure that stocks are drawn down. In fact, industry built stocks during past disruptions in anticipation of higher prices. (See pp. 16 to 18.)

EMERGENCY RESPONSE PROCEDURES ARE VAGUE AND ARE NOT FULLY DEVELOPED

In addition to requiring options the President might use to respond to a severe energy emergency, EEPA requires the procedures report to specify the procedures to implement these actions. The report responds to this requirement by describing the Emergency Response Management System. According to the report, "The principal goal of the emergency response management system is to provide an integrated management process that will ensure the orderly and timely assessment and evaluation of and response to an energy emergency."

The report's description of response procedures lacks necessary detail

In the eight pages specifically devoted to "emergency response procedures," the procedures report does not provide comprehensive procedures, as the report's title suggests, nor does it provide the level of detail which the law requires. While the report indicates who the major participants are, including Department of Energy offices, other agencies, and interagency groups, it provides little detail on

--how Government response options would be selected and implemented,

--which individuals or groups make key decisions or select response options,

--how specific organizations would coordinate their activities, and

--what implementation procedures would be used by each participating group for different response actions. (See pp. 22 to 26.)

The emergency response procedures have not been completed

Another problem with the procedures is that they are incomplete. The report acknowledges this by stating that the Federal Government and Department of Energy are still refining the energy emergency management system. More specifically, the report states that:

--The emergency response management system is "still under development."

--The flowchart depicting this system is described as a "preliminary draft."

--Detailed procedures have not yet been developed to implement many of the response options we discussed earlier. The report acknowledges this, stating that "For each of these programs, the DOE is either currently developing detailed procedures* * *or is studying possible measures that might have potential, or is doing both."

In the meantime, many of the program "options" outlined in the report could not be implemented without great difficulty if an energy supply disruption occurred. (See pp. 26 to 27.)

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Because our evaluation was requested within 6 weeks, we did not request agency comments. However, we gave Department of Energy energy emergency preparedness officials a draft and discussed their reactions with the Deputy Assistant Secretary for Energy Emergencies. The Department's comments concerned clarification of several issues we raised. These comments have been incorporated in the text where appropriate.

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ABBREVIATIONS

DOE	Department of Energy
DPA	Defense Production Act
EEPA	Energy Emergency Preparedness Act
EPAA	Emergency Petroleum Allocation Act
ERMS	Emergency Response Management System
ERWG	Emergency Response Working Group
GAO	General Accounting Office
IEA	International Energy Agency
SPR	Strategic Petroleum Reserve

CHAPTER 1

INTRODUCTION

BACKGROUND

This report is the third in a series of GAO reports, requested by the Chairman and several members of the Senate Committee on Energy and Natural Resources, to analyze documents prepared by the Administration under the Energy Emergency Preparedness Act of 1982 (EEPA). 1/ Specifically, this report discusses the "Comprehensive Energy Emergency Response Procedures" report (referred to below as the "procedures report") which was issued by the President on December 31, 1982.

EEPA, section 271, indicates why the procedures report was required, stating that "* * *the Federal Government shall be prepared prior to any shortage of petroleum products to respond to energy emergencies* * *as a supplement to reliance on the free market to mitigate the adverse impacts of a shortage of petroleum products on public health, safety, and welfare." It further states that the purpose of the energy emergency preparedness part of EEPA is to provide "* * *for the preparation of comprehensive energy emergency response procedures to be available for use by the President* * *."

The requirement for the procedures report is the most recent outgrowth of a longstanding effort by the Congress to ensure that the Nation is adequately prepared to deal with severe energy supply interruptions. Other efforts date back to the Arab oil embargo of 1973 and continued through a series of energy emergencies during the 1970s.

One of the major laws enacted during this period was the Emergency Petroleum Allocation Act of 1973 (EPAA). This law established a complex system of price and allocation controls. Other laws were enacted to encourage domestic energy production and conservation.

The Congress attempted to replace EPAA, which expired in September 1981, with the Standby Petroleum Allocation Act of 1982. The bill would have given the President discretionary standby

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1/The first report, "Status of the Administration's Implementation of the Energy Emergency Preparedness Act of 1982," GAO/ RCED-83-33, Oct. 8, 1982, focused on whether the statutory requirements and reporting deadlines would be met. The second report, "Analyses of the Strategic Petroleum Reserve Drawdown Plan and the Strategic Petroleum Reserve Drawdown and Distribution Report," (GAO/RCED-83-85), analyzed two planning documents on how the Strategic Petroleum Reserve would be used in oil supply interruptions.

authority to allocate petroleum. The President vetoed the bill, stating in his veto message:

> "Today I have ample powers to take the steps necessary to protect national security, meet treaty obligations, and assure essential public health and safety functions* * *. What I do not have, do not want, and do not need is general power to reimpose on all Americans another web of price controls and mandatory allocations."

After the veto, the Congress turned its attention to an overall review of the Nation's energy emergency preparedness as part of its consideration of the Energy Emergency Preparedness Act (EEPA) which was passed in August 1982. According to the Senate committee report which accompanied EEPA, such an inquiry was

> "* * *particularly appropriate as the United States is now dependent on the marketplace, and, as the President noted, on the general powers that can be used by the President to protect national security, meet our treaty obligations and assure essential public health and safety functions."

A hearing was held on energy emergency preparedness in May 1982, by the Senate Committee on Energy and Natural Resources. The Congress ultimately adopted several amendments to EEPA because, according to the committee report, "of its concern over the lack of progress made to date in our Nation's energy emergency preparedness planning, and its desire to insure that we are prepared." One of these amendments, submitted by the Committee's Chairman, required preparation and submission of a "comprehensive energy emergency response procedure" by December 31, 1982.

EEPA'S REQUIREMENTS FOR THE COMPREHENSIVE ENERGY EMERGENCY RESPONSE PROCEDURES REPORT

EEPA, as amended, directed the President to submit to the Congress, "comprehensive energy emergency response procedures" for implementing the emergency authorities available to him. 1/ Section 272(b) requires the Comprehensive Energy Emergency Response Procedures Report (referred to below as "the Report") to contain three elements:

--Options the President would consider using to respond to a severe energy emergency, including a description of the likely sequence in which such options would be taken.

1/EEPA required the President to provide these emergency authorities in a memorandum of law which was transmitted to the Congress on Nov. 15, 1982.

- --A description of how response actions would be selected and implemented, particularly who would select and implement these actions and what procedures would be used.
- --Recommendations for additional statutory authority that the President may need to respond to a severe energy emergency.

The Senate committee report accompanying EEPA suggests that these elements do not require descriptions of the actual policies and substantive decisions that would be employed in various shortage conditions. Rather the document

> "* * *should identify the response options or policies that the administration would consider using, and should include, if not precise criteria for decision-making, then at least descriptions of how decisions are made, who will make them, and the general policy considerations that will be taken into account in selecting a particular procedure or course rather than other available alternatives."

OBJECTIVES, SCOPE, AND METHODOLOGY

Our objective was to examine how well the procedures report complied with the requirements of EEPA. We reviewed the House and Senate committee reports, conference reports, and hearings to better understand what the Congress intended to be included in the document. We also relied on GAO's extensive past and ongoing work on energy emergency planning issues as part of our own determination of what would constitute an adequate statement on the Nation's readiness to respond to an energy emergency. This work includes a comprehensive report on energy emergency preparedness programs, issued in September 1981, and our recent analyses of two administration planning documents on the SPR.

The Senators specified that our reports be prepared within 30 days of the President's submission to the Congress. 1/ Because of the tight reporting deadlines, we focused our work on issues of particular concern to the Senate Committee on Energy and Natural Resources, such as the Strategic Petroleum Reserve, as related to us by committee staff.

We obtained additional information through interviews and review of documentation supplied by officials in the Department of Energy's (DOE's) Office of Energy Emergencies. DOE's Assistant Secretary for Environmental Protection, Safety, and Emergency Preparedness and members of his staff cooperated fully and provided us with all requested information. Our audit work was

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1/This deadline was subsequently extended for this report.

conducted in accordance with generally accepted government auditing standards.

CHAPTER 2

EMERGENCY RESPONSE OPTIONS ARE INADEQUATELY DETAILED AND SOME FACE IMPLEMENTATION PROBLEMS

In response to the legislative requirement, the procedures report describes the various options, programs, and other actions that the President would consider using to respond to an energy supply interruption. Generally, we found the report contains little detailed information on the content and status of these options. One cannot rely on these brief descriptions alone to determine whether the programs would be effective or whether deadlines for individual program elements are being met. Among our specific concerns are:

--Key programs, notably the Strategic Petroleum Reserve (SPR) and the Emergency Executive Manpower Reserves, face major implementation problems;

--Key policy issues in some program areas (for example, coordination of Federal and State policies and programs) are not adequately resolved;

--Some key issues, such as the role of private oil stocks, are barely discussed or are omitted altogether;

--The scenarios described in the report give little indication of how or in what sequence individual programs would be implemented.

Individual programs discussed below are:

--The Strategic Petroleum Reserve.

--The Emergency Executive Manpower Reserve.

--International energy programs.

--Coordination of Federal and State programs and policies.

--Private oil stocks.

THE STRATEGIC PETROLEUM RESERVE PROGRAM

According to the procedures report, the SPR Program "has the objective of developing the policies, procedures, organizational structure and support systems required to plan and implement an effective drawdown of the Strategic Petroleum Reserve."

Progress has been made in filling the SPR and the capability to withdraw oil from SPR caverns has already been demonstrated.

However, as we noted in our recent report, 1/ two administration documents (required by EEPA) show that more planning needs to be done to assure effective use of the SPR in an oil supply interruption. In addition, procedures for SPR drawdown and distribution are to be tested and some legal issues need to be resolved to facilitate distribution of SPR oil.

Recent administration documents do not demonstrate that SPR use has been adequately planned

In our recent report on two administration documents on the SPR, we noted that neither one provided much information about the conditions in which SPR oil would be used in an emergency, including the amount, rate, and timing of use. One of the documents, "The Strategic Petroleum Reserve Drawdown and Distribution Report," was supposed to describe alternative scenarios that could necessitate distributions from the SPR and descriptions of alternative strategies of distribution (with the theory and justification for each) that could be used to respond to each of these situations. The conference committee report accompanying EEPA stated at one point that the SPR Report, "should cover in depth what crises are reasonably foreseeable and include a variety of possible measures for handling them." However, this document contained substantially less information than expected. The subjects were addressed in broad terms, particularly the "situations" and alternative strategies required by EEPA. Rather than the detailed analyses requested by the Congress, the situations and alternative strategies were presented in the document as "some simple scenarios" for "illustrative purposes." The result, we concluded, was "a report that supplies very little information on how, or whether, we can effectively use the SPR."

Another document, "The Strategic Petroleum Reserve Drawdown Plan," contains the guidelines the administration would use under any SPR drawdown. Under section 161(b) of the Energy Policy and Conservation Act of 1975 (EPCA), the administration is required to abide by the terms of the plan during any future SPR drawdown. Among the key policy decisions reflected in this document:

--The President will decide when and how to use the SPR; an automatic "trigger" would not be used.

--The basic method of distribution of SPR oil will be by competitive sale, with awards going to the highest bidders.

1/"Analyses of the Strategic Petroleum Reserve Drawdown Plan and the Strategic Petroleum Reserve Drawdown and Distribution Report," GAO/RCED-83-85, Jan. 3, 1983.

--The sale would be open to all interested buyers and, according to this Plan, "It is intended that the universe of eligible buyers will be as large as possible to ensure efficient distribution of SPR oil."

--"Under the most extreme of circumstances," up to 10 percent of SPR oil sold could be set aside by the Secretary of Energy to alleviate special hardship caused by an oil shortage.

These policies are not discussed in detail in the plan. The administration explicitly opposed providing specific details in this plan on SPR drawdown because it could constrain the President's flexibility in dealing with an emergency. This flexibility, however, as well as several important provisions, raise some questions with important policy implications.

One question relates to whether the Government can ensure that SPR oil would actually be used to alleviate an oil shortage or whether it would be retained in private stockpiles. The plan notes that transfer of ownership to the buyer takes place at supporting terminals near the storage sites. According to the plan, "The Government's role will end at this point and the buyers will assume distribution responsibility." The plan is vague, however, about what happens to the oil after this transfer of ownership takes place. It leaves unclear the terms of DOE's "standard sales agreement" or whether the agreement would ensure that oil would not be retained in private stockpiles.

Other questions are raised by provisions for the 10-percent "set-aside." The plan states that the Secretary of Energy may set aside up to 10 percent of the SPR oil sold in any month under the most extreme circumstances. "Up to" 10 percent implies that the set-aside could be a smaller amount. As we noted in our recent report dealing with the SPR plan, however, the potential for even the maximum 10-percent set-aside to alleviate hardship during a severe emergency is limited.

Other questions raised by the SPR Plan include the following:

--Should all SPR oil (including the 10-percent set-aside oil) be sold at market prices, or should any distribution policies be invoked other than "to the highest bidder?"

--Does the Congress agree with the decision not to use an "automatic trigger" to determine when and how to use the SPR, and to allow these decisions to be entirely at the discretion of the President?

--The plan notes that the SPR could be used to satisfy U.S. obligations under the International Energy Program

(IEP), but gives little indication of whether it would be used for this purpose. Under what conditions should the SPR be used to support the U.S. commitment under the IEP?

While time constraints have not allowed us to pursue these questions further in this report, we believe that they raise important issues that should be addressed in planning SPR use.

SPR drawdown procedures are to be tested

In addition to the policy issues relating to how prepared we are to use the SPR, other questions relate to the distribution system's ability to move oil and the procedures that would be followed during drawdown and distribution.

DOE has made progress on these matters. Tests have demonstrated the ability to pump oil from the caverns. As the procedures report notes, a manual is currently under development that details SPR drawdown procedures. According to the manual, it "describes the functions and activities associated with the management of SPR drawdown and distribution. It is intended to provide a comprehensive picture of a generalized response process."

The latest version of the manual includes a very detailed statement of activities to be undertaken by specific agency officials and the responsibilities of participating offices and individuals, but it does not give guidance on how or when these responsibilities shall be carried out. However, as the introduction to the manual states, "It is not intended to describe the detailed procedures used to deal with the multitude of variables associated with an actual energy emergency. The manual describes what must be done, but not how to do it." One of DOE's planned operational tests of SPR drawdown and distribution will provide a better indication of how well the procedures actually work in practice. The test, called "DIREX B," is now scheduled for July 1983. The results of the test will be addressed in one of our quarterly SPR reports.

Legal issues should be resolved to facilitate SPR drawdown and distribution

According to the procedures report, two legal issues that should be resolved to facilitate distribution of SPR oil include the possible need to (1) amend the Defense Production Act (DPA) to facilitate transportation of SPR oil and (2) amend the Export Administration Act to allow SPR oil to be refined in Caribbean refineries.

One area under study, according to the report, is the suitability of section 101 of the DPA for meeting any extraordinary requirements for SPR oil transportation which might develop. Section 101(a), as presently written, could be used by the

President to require priority for transportation of SPR oil, but only for national defense-related purposes. As the procedures report notes, however, invoking national defense authority in connection with SPR use could subject SPR contractors to defense-related cost accounting standards. Past experience, the report says, suggests that this may be unacceptable to many SPR contractors.

The administration is also studying the need to waive certain statutory export restrictions to allow buyers of SPR oil to use Caribbean refineries. Some types of SPR oil that cannot be exported (e.g., Alaskan North Slope Oil, Naval Petroleum Reserves oil) are commingled in storage caverns with other types of oil that may have no specific statutory restriction. Accordingly, the procedures report notes that "Consideration might be given to legislation authorizing the President selectively to waive statutory controls on exports of SPR crude oil during drawdown and distribution under conditions of a 'severe energy supply interruption.'"

An additional question relates to the Jones Act requirement for moving SPR oil in U.S.-flag ships. The procedures report states that during a severe energy supply interruption, it may become necessary to waive this requirement. However, this requirement can only be waived when deemed necessary in the interest of national defense. Thus, such a waiver in an energy emergency would have to be accompanied by a finding that it was defense related.

Thus, the procedures report raises several potential legal problems posing constraints on how SPR oil could be transported and used during an energy emergency. According to the Acting Deputy Director of DOE's Office of Energy Emergencies, no timetable has been set for proposing remedial legislation. Until such legislation is enacted, however, these problems may hamper the SPR's use.

In summary, we have identified three issues which should be resolved to make effective use of the SPR: (1) SPR use planning must be adequately developed, (2) procedures for SPR drawdown and distribution need to be tested (such a test is scheduled for July 1983), and (3) legal issues should be resolved to facilitate the distribution of SPR oil. Issues concerning the SPR's fill rate and capacity concerns are addressed in our most recent SPR quarterly report.

EMERGENCY EXECUTIVE MANPOWER RESERVES

A major program the administration intends to use in responding to a severe energy emergency, particularly a defense-related energy emergency, is the Emergency Executive Manpower Reserve.

The objective is the development and maintenance of the capability to quickly augment DOE staff during energy emergencies with experienced industry professionals who can help identify and assess supply and demand problems and assist in coordinating energy production and distribution. The procedures report identifies three separate reserves: The Emergency Electric Power Executive Reserve, the Emergency Petroleum and Gas Executive Reserve, and the Emergency Solid Fuels Executive Reserve.

We agree that Government use of industry expertise can be particularly useful during energy emergencies. However, several problems, some of which are acknowledged in the report and in the Department of Justice's memorandum of law on authorities now available to the President which can be used to counter an energy emergency, presently complicate the administration's ability to effectively use the Reserves during a severe energy emergency. As a consequence of these problems, for example, the Reserves were not activated during the 1973 oil embargo.

First, the Reserves could be activated only in an energy emergency that would adversely affect the national defense preparedness of the United States. Unless they could be activated in non-defense-related crises, DOE would not be able to use them for some of the most likely kinds of energy emergencies.

Second, as the Justice Department's memorandum of law notes, Reservists from the private sector who serve or advise Federal officials during an emergency are subject to conflict of interest laws applicable to Federal employees. According to the memorandum, Section 208 of the Criminal Code is of particular concern because it imposes criminal penalties on any Government employee or "special government employee" who participates "personally and substantially" for the Government in a matter in which he, members of his family, his employer, or potential employer has a financial or employment-related interest. The procedures report concludes from this that "section 208 could be a significant constraint on the use of WOCS [Special Government Employees serving without compensation] and Executive Reservists during emergencies." An additional problem not sufficiently discussed in the memorandum or the procedures report deals with the conflict of interest provisions of the Department of Energy Organization Act. These provisions would apply to Reservists because the energy-related Reserves are administered by DOE. Particularly important are provisions that may (1) require Reservists to divest themselves of financial holdings in any energy concern and (2) prohibit any official relationship with an energy concern by a DOE supervisory employee or one authorized to make comparable decisions.

Third, as the procedures report states, "the participation of industry officials required by these programs may expose them or other companies to antitrust risks." The memorandum elaborates on this point, stating:

> "It is likely that an individual called to Government service* * *would retain some ties with his or her former private employer, and would probably return to private employment upon completion of Government service. In light of these dual public and private roles, actions taken by the individual while employed by the Government might raise questions of antitrust liability for the individual and the employer."

The procedures report acknowledges that conflict of interest and antitrust problems have discouraged industry participation in past energy supply interruptions. During the oil embargo of 1973, the Department of the Interior attempted unsuccessfully to activate members of oil emergency manpower reserve. According to the report, "Official documentation and reactions by the press to the proposed action demonstrated that the conflict of interest and antitrust questions became paramount considerations, preventing the activation plan from being implemented."

The report does not recommend any legislation to address these problems, stating that such a recommendation "requires considerably more study and discussion within the Administration than is possible within the time limits set for presentation of the Comprehensive Energy Emergency Response Procedures Report." According to DOE's Deputy Assistant Secretary for Energy Emergencies, it is unlikely that specific proposals would be made before 1984. Until these issues are resolved, however, the Emergency Executive Manpower Reserves may not be available for use during an energy emergency.

INTERNATIONAL ENERGY PROGRAMS

The procedures report addresses international energy programs by broadly describing several programs relating to U.S. obligations under IEA and NATO agreements. The report states:

> "This effort has as its objective the development of systems and procedures which will ensure that the United States is capable of meeting its international energy obligations."

Involvement in the International Energy Agency's Emergency Sharing System (ESS) is a particularly important part of the U.S. contingency planning effort, since it commits the United States to share petroleum supplies in the event of a major disruption, and to take other actions as well.

The report, however, provides insufficient information on U.S. programs to implement U.S. participation in the IEA's Emergency Sharing System. Many appear to be under development, but target dates for completion are sometimes not included. (We obtained this information from DOE officials and have included it in appendix I of this report.)

Other concerns, discussed below, about these programs' effectiveness are based on recent and ongoing GAO work in this area.

Procedures for participation by U.S. oil companies in the IEA emergency sharing system

U.S. oil company involvement is critical to the success of the IEA's Emergency Sharing System. However, the procedures report does not deal adequately with the Government's antitrust clearance procedures covering oil companies' participation in the system, nor does it demonstrate effective progress in developing a needed oil "fair sharing" system.

Although the report states that DOE is responsible for "liaison with industry related to its plans for petroleum acquisition and distribution during disruptions," it does not address any of the issues related to management of U.S. oil company involvement in the ESS, such as reporting procedures and antitrust clearances. Other key issues omitted, which we have discussed in past work, are the following:

--DOE has yet to provide an approved revision to the plan of action which was written before development of the IEA's Emergency Sharing System. DOE has been working on the revision, which would make it compatible with the ESS, for 5 years, and U.S. oil companies deem the revisions essential for their effective participation. The statutorily-required plan should set forth in specific and descriptive detail the procedures and actions by which U.S. oil companies may participate in the IEA Emergency Sharing System with limited antitrust protection during an actual emergency.

--The procedures report does not clarify how DOE would communicate and coordinate with the IEA in an emergency. The last test of the IEA Emergency Sharing System in 1980 revealed many communication and coordination problems involving DOE's interaction with the IEA Secretariat.

According to the procedures report, "the Fair Sharing Study is intended to design a domestic fair sharing system for possible use should the IEA sharing system be triggered." Fair sharing refers to the redistribution of oil among petroleum companies operating within any one participating country so that no one petroleum company is penalized by having to share its oil under the IEA Emergency Sharing System. A fair sharing system among companies operating within the United States is crucial to the Emergency Sharing System because five of the seven largest international oil companies, and 21 of the 47 IEA reporting companies, are American. If these companies did not actively participate in the implementation of the Emergency Sharing System, the voluntary aspect of the system would likely collapse.

In view of the importance of establishing a fair sharing system, we are concerned about the prospects for its timely completion. DOE's plans to develop a system go back at least 1-1/2 years. Yet, according to the Acting Deputy Director of DOE's Office of Energy Emergencies, a firm decision has not yet been made on when--or if--a fair sharing plan should be developed.

Demand restraint

The procedures report addresses demand restraint in a brief discussion of "* * *efforts to identify mechanisms to reduce oil demand in the U.S. to the level authorized by the IEP if the IEA Emergency Sharing System is triggered." 1/

The "generic response actions" examined are (1) rising prices to curb demand, possibly combined with additional price-related actions (for example, imposing excise taxes) and (2) supply enhancement actions (for example, using the SPR and non-oil fuels). Thus, the report's approach is consistent with the administration's opposition to imposing mandatory demand restraint measures on consumers. The first action would discourage consumption through higher prices, while the second would increase availability of domestic oil supplies.

While price, price-related, and supply enhancement actions can legally satisfy U.S. obligations if the ESS were activated, most other countries participating in the IEA have chosen to develop additional demand restraint contingency programs. The measures available in these programs generally include compulsory orders, allocation, and rationing. In addition, demand restraint measures could be used as a backup if the measures identified in the supply right study were not sufficient to meet IEA obligations. The IEA Secretariat, in a draft November 25, 1982 paper, noted that the United States does not have detailed demand restraint plans to implement during an energy disruption.

Under the IEA Emergency Management Manual, each participating country is deemed to have restrained demand within 21 days after a positive finding by the IEA that the oil supply shortfall is sufficient to trigger the activation of the international allocation system. Whether price and supply enhancement measures could achieve the necessary restraint within 3 weeks seems questionable, even if they were ready to implement. As noted above, DOE is currently only studying possible use of such measures.

1/Demand restraint programs are authorized by the Emergency Energy Conservation Act and the Energy Policy and Conservation Act.

In our April 6, 1982, report to the Chairman of the Subcommittee on Fossil and Synthetic Fuels, House Committee on Energy and Commerce, we stated that 21 days is too short a period to enact legislation, hire and train professional staff, and implement additional demand restraint measures in the United States. Realistically, the instruments for petroleum demand restraint implementation would have to be in place on a standby basis as contemplated by the IEP, in advance of the emergency if the required demand reduction were to be attained within the 21-day period agreed by all participating countries including the United States.

IEA Allocation system tests

The allocation system tests (ASTs) are periodically conducted by the IEA, member countries, and participating companies to test the operational effectiveness of the ESS, train personnel in the operation of the system, and evaluate the ability of the IEA member countries to respond to severe disruptions.

In discussing the fourth such exercise, scheduled for the second quarter of 1983, the procedures report does not mention a major criticism of all IEA System tests--the failure to include prices for the oil allocated by the System. Although IEA member nations agreed not to include price in this particular test at the insistance of the United States and West Germany, the matter of pricing in an emergency remains unresolved. The issue is that if companies are not permitted to charge whatever the market will bear, they may not supply oil voluntarily and the governments of the IEA countries would have to mandate sharing. The United States has taken the position that the artificial environment of a test could establish unrealistic prices that might compromise the effectiveness of the system in an actual emergency. If the 21 IEA member countries that would share oil in a severe disruption cannot agree on pricing principles, questions arise about the viability of the ESS in an actual emergency. These differences should therefore be resolved to minimize the problems that might be encountered if and when the ESS is activated.

NATO activities

The procedures report notes that the North Atlantic Treaty requires "the United States to respond to various peacetime and wartime oil requirements of the North Atlantic Treaty Organization." A major omission is whether U.S. involvement in the NATO system would conflict with similar U.S. involvement in the IEA System. Because the two systems might be used simultaneously in a crisis, a major communication and coordination problem might occur, adversely affecting the U.S. and overall allied contingency planning efforts. While the potential extent of this problem is not known, GAO is reviewing the subject at the request of a Member of Congress.

POTENTIAL CONFLICTS BETWEEN FEDERAL AND STATE LAWS AND POLICIES

The procedures report pays little attention to the potential for conflict between Federal and State laws and policies in responding to an energy emergency. Individual States could enact their own petroleum product allocation and pricing laws which would be at variance with the Federal policy relying on the free market.

The Senate committee report accompanying EEPA noted this potential problem, stating that the Senate Committee on Energy and Natural Resources is concerned "about the fact that under existing Federal law, there is no Federal preemption of those State and local laws that could seriously inhibit operation of market allocation and pricing, and that could interfere with Federal energy emergency responses in the event of an energy shortage."

The Senate committee report noted that DOE did not respond adequately to the Committee's inquiries about why a web of potentially conflicting Federal and State regulations would not be created. According to the Senate committee report, DOE responded: "We anticipate that the States will recognize that putting in place mechanisms that did not work at the Federal level, would not work at State and local levels either."

According to the Senate committee report, DOE also told the Committee: "In view of the fact that Government intervention has proven in the past to create or exacerbate crises in the energy field, we certainly expect that the States would respect the lessons of history, and act accordingly." The committee report then stated that because DOE did not provide any analysis to support these statements, the issues should be discussed more thoroughly in the administration's comprehensive energy emergency response procedure.

The problem is briefly mentioned in the procedures report's discussion of response measures during a hypothetical "severe" energy emergency. Under these circumstances, according to the Report, "The Federal Government* * *may attempt to dissuade the States from taking regulatory actions which conflict with the Federal market strategy." The report does not, however, discuss possible actions the Federal Government could take to "dissuade" the States from enforcing price and allocation controls. For example, it does not address the difficulty and consequences of litigating, in emergency circumstances, the principle of Federal Government preemption of State allocation and price controls. Although the Emergency Petroleum Allocation Act contained the authority to preempt these measures, that law expired in 1981. As the Justice Department's memorandum of law acknowledges, it would be extremely difficult to interpret another existing statute as authorizing preemption of these types of State laws and regulations.

This is of particular concern in view of the fact that about 20 States presently have a state set-aside program, or other type of fuel management plan such as rationing, in their emergency energy contingency plans. More States could develop similar or more stringent measures if a severe energy supply disruption occurred. These measures are inconsistent with a Federal policy relying on the market to determine oil price and distribution and could create problems for industry if a web of State regulatory measures were to go into effect during a national energy emergency.

The prospect of many States attempting to protect their economies through such measures was also included in a recent RAND Corporation study prepared for the California Energy Commission. The study, which simulated an emergency response to a Middle Eastern oil emergency, found that participating State representatives moved to protect their economies with a number of actions conflicting with the Federal market strategy. In testimony before the House Committee on Small Business, Subcommittee on Energy, Environment, and Safety Issues Affecting Small Business, the study's supervisor said that State representatives:

> "* * *sought to control oil price and destination internally and began cooperating with each other to share oil and petroleum products interstate. The staff analysis of the simulation shows that this independent State action will lead to conflict over ten major areas under present Federal energy emergency management policy."

Among the 10 major areas of conflict identified are State petroleum product allocation and price controls.

PRIVATE OIL STOCKS

The only discussion about private oil stocks is near the beginning of the procedures report, where it states that such stocks play a major role in the administration's strategy for coping with oil supply disruptions. However, it does not say whether any program for assuring the adequacy of private stocks should be initiated; nor does it indicate that any initiatives for doing so are being studied or developed. The report states that private primary stocks are at high levels and that, along with the SPR, provide very substantial protection against major supply disruptions. However, it offers very few facts or figures to support this conclusion, and those which it presents may be misleading.

Statements about private oil stocks may be misleading

The procedures report states the administration's position that relying on the market, coupled with adequate public and' private stockpiles, is one of the most effective measures available for responding to shortfalls in petroleum supplies and the associated effects on the economy and national security. It asserts that "the U.S. now has substantial protection against major supply disruptions," noting (1) U.S. primary oil stocks are presently at very high levels and (2) combined private and Government stocks of all petroleum products and crude oil total about 1,450 million barrels (as of Dec. 10, 1982), or approximately 320 days of imports.

While these figures are technically correct, total primary oil stocks (crude and product) have declined considerably during the past year. In fact, compared to the peak of August 1980, the decline in primary oil stocks has largely offset the substantial buildup in the SPR. In other words, the protection we have bought through the SPR has been countered by losses in primary oil stocks. For example, while the SPR grew by 183 MMB between August of 1980 and August of 1982, private stocks fell by 223 MMB during the same period, as shown in the table below.

Since seasonality factors affect industry's stock levels, two sets of comparisons are provided--August 1980 with August 1982 and December 1980 with December 1982. Although the December comparison shows an apparent improvement over the August figures, this may be largely due to unusually warm weather and hence may be transitory. The Nation's weather from July 1, 1982, through January 2, 1983, was 10.4 percent warmer than normal and 11.0 percent warmer than the previous year.

Table 1

Comparison of SPR and Industry Primary Oil Stocks

(millions of barrels)

	August 1980	August 1982	Change	December 1980	December 1982	Change
	(millions of barrels)					
Industry primary oil stocks	1,357	1,134	-223	1,284	1,149	-135
SPR stocks	91	274	183	108	293	185

DOE/IEA, "Weekly Petroleum Status Report," Jan. 7, 1983. p. 6.

Although primary stocks have declined substantially, so too has oil consumption. As a result, total stocks relative to consumption continue at a high level compared with the last half of the 1970s. However, this measure is difficult to interpret, since whether stocks required for operating purposes have declined commensurately with diminishing oil consumption is not clear. In addition, part of the decline in oil consumption is attributable to the severe economic recession. Thus, if oil consumption increases when economic growth resumes, stock levels relative to consumption may decline.

The administration's statement that the combined level of primary and SPR stocks equals approximately 320 days of imports is also misleading. Most industry stocks are needed for operations and are not available for emergency drawdown. For example, in 1981 Exxon estimated industry's minimum operating stock requirements at 950 million barrels of oil. These are primary inventories needed merely to keep the oil logistical system operating, and hence are unavailable. 1/ A minimum oil inventory requirement of this amount represented 76 percent of industry's primary oil stocks at the end of December 1981, and 83 percent at the end of December 1982.

Important information and studies are not discussed

The procedures report does not discuss several important Government studies on this issue. No mention is made of a recent study prepared for DOE that evaluated the adequacy of current petroleum inventories in the United States. 2/ The study found that "recent private sector reductions in inventory levels have run counter to public sector efforts to increase inventories--including the development of the Strategic Petroleum Reserve," and that these reductions "have obvious harmful implications viewed solely from the perspective of emergency preparedness." Even more worrisome, the study examined several international oil supply disruption scenarios and concluded that "even moderate panic buying will produce a demand for petroleum products that greatly exceeds the productive capacity of the industry and destabilizes petroleum markets."

Another omission is that the procedures report does not mention the results of other DOE studies that evaluate possible use of financial incentives to encourage industry to build up petroleum stocks above normal inventory levels for use during supply emergencies. A major DOE draft study on this subject was completed in October 1981.

SCENARIOS GIVE LITTLE INSIGHT INTO HOW ALTERNATIVE OPTIONS COULD BE USED

The procedures report states that "in order to comply as fully as possible with the intent of section 272(b)," it provides "a rough characterization of the response options the President may consider using in three hypothetical scenarios." Although not

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1/Exxon, "World Oil Inventories," Aug. 1981, pp. 6, 10-11.

2/Charles River Associates, "An Evaluation of the Adequacy of Current Petroleum Stockpiles," August, 1982, (Boston, Mass.)

specifically required by EEPA, the use of scenarios could have demonstrated what options would be used under different situations and how they would be implemented. In addition, they could have been used to show the sequence in which options would be used, as required by section 272(b)(2)(A). However, the report's brief scenarios do not effectively provide this information. They are vaguely described, giving little insight into the circumstances in which the administration could use different options or how these options would be implemented. Furthermore, they do not provide the options' sequence.

The scenarios are vague

The three disruption scenarios are the same ones as those presented in the administration's recent "Strategic Petroleum Reserve Drawdown and Distribution Report." They include hypothetical "mild," "moderately severe," and "severe" cases. Our January 3 analysis of that report concluded that the scenarios were "extremely vague" and would therefore "give little insight into what types of situations the Administration would consider using the Reserve."

In the procedures report, the same three scenarios give little insight about the types of situations under which the SPR and other options would be used. As in the previous SPR report, how much oil is lost in the "moderately severe" disruption is not known, nor are details on foreign and domestic oil inventory levels, production and consumption levels, and surge production capacity. While in the "moderately severe" case the time period of the disruption is said to be "closely estimated," the procedures report does not state what that time period is.

Thus, while options are listed for each of the scenarios, the exceedingly broad descriptions of all three scenarios make it hard to understand what circumstances might lead to use of an option.

In addition, little specific information is given about how an option might be used. In each of the three scenarios, the major broad program areas (for example, international energy programs, emergency public information programs) are merely listed, often with little said about how they would be implemented, or which of their individual components would be used.

The sequence of options is not provided

In addition to providing little detail on how the broad program areas would be applied in each scenario, the "description of the likely sequence is which such options would be taken"--which is required by EEPA--is ignored. In the "moderately severe" case, for example, the program areas listed included international energy programs, the Executive Manpower Reserve Program, Defense Support Programs, and the SPR. The procedures report, however, does not state in which order they will be employed. Furthermore, within a program area, such as "international energy programs," it does not state the sequence in which particular actions might be taken.

The only indication about the options' sequence is the report's statement that "this Administration would seek to respond to energy supply disruptions using the least intrusive measures first, in order to minimize interference with normal marketplace reactions to the emergency." The report, however, never categorizes measures according to their "intrusiveness" nor defines this term.

The scenarios' lack of detailed descriptions partially accounts for the lack of sequencing. As the report notes, "the use of any particular program or procedure would depend upon the specific disruption at hand, and the specific results desired at the time * * *many factors, objectives, and circumstances must be taken into account in reaching a decision on which of the available responses--and combinations and sequence of responses--to use during a petroleum supply disruption." However, detailed scenarios could have simulated many of these "factors, objectives, and circumstances." This could have permitted a useful discussion of how various circumstances and factors, such as disruption length and oil inventory levels, would affect sequencing decisions.

CHAPTER 3

EMERGENCY RESPONSE PROCEDURES ARE VAGUE AND ARE NOT FULLY DEVELOPED

In addition to requiring the options the President might use to respond to a severe energy emergency, EEPA requires the administration to specify the procedures to implement these actions. Section 272(b)(2)(B) requires the procedures report to:

> "* * *specify how appropriate governmental actions in response to international and domestic energy shortages would be selected and implemented under such options, particularly which official Governmental entity would select and implement such actions, and what procedures would be used in doing so."

The procedures report responds to this requirement largely by describing the "emergency response management system." According to the report, "the principal goal of the emergency response management system is to provide an integrated management process that will ensure the orderly and timely assessment and evaluation of and response to an energy emergency." The report, however, has two fundamental problems in demonstrating that this goal has been achieved:

--The description of the roles of decisionmakers, and those implementing their actions, lacks necessary detail. As a result, the procedures to be followed within DOE and other organizations, and among agencies, are not clear.

--Many of the procedures have not yet been fully developed.

THE REPORT'S DESCRIPTION OF THE RESPONSE PROCEDURES

Section II of the procedures report addresses the Federal Government's overall emergency response procedures for managing an energy crisis. These procedures reflect the administration's belief that "effective energy emergency preparedness lies in developing processes for anticipating and responding to a multitude of potential crisis situations."

The keystone to the emergency response procedures is the Emergency Response Management System (ERMS). The process consists of three elements:

--Organizational decisionmaking structures and procedures.

--Implementation procedures for response options, specifying the way response measures may be initiated and managed.

--Provisions for the administrative and logistical support required for implementation.

According to the report, the emergency response management process includes all organizations dealing with energy emergencies, including "appropriate Departments, Inter-agency Groups, Senior Inter-agency Groups, and Cabinet Councils."

Within DOE, the emergency response management process is driven by an intra-agency coordination body, the Emergency Response Working Group (ERWG), which consists of representatives from all DOE offices having an emergency management role. The group is designed to

--analyze and report to the Secretary of Energy who will in turn report to other participating outside groups on the dimensions and potential impacts of an energy shortage,

--identify response options,

--prepare implementation plans for the selected response measures, and

--coordinate and monitor implementation of response measures.

A flowchart shows how the actions of this group relate to the offices in DOE and depicts more generally "the various elements, actions, and interrelationships involved in developing policy and program options for DOE and Federal decisionmakers in the event of an emergency situation." The flowchart, according to the Acting Deputy Director of DOE's Office of Energy Emergencies, depicts a "generic" decisionmaking and implementation process that could be applied to most emergency situations. While the exact flow of responsibilities may differ somewhat according to the circumstances of a specific emergency, the overall process and actors would remain essentially as depicted in the chart.

The procedures report also states that, for each of the potential response options the Government will consider using in an emergency--as identified in section III of the report--DOE is either "currently developing detailed procedures" to ensure that the necessary staffing, logistical support, and operational procedures are ready, or "is studying possible measures that might have potential, or is doing both."

THE REPORT'S DESCRIPTION OF RESPONSE PROCEDURES LACKS NECESSARY DETAIL

In the eight pages specifically devoted to "Emergency Response Procedures," the procedures report does not provide comprehensive procedures, as the Report's title suggests, nor does it provide the level of detail which EEPA requires.

The three elements of the emergency response management process--organizational decisionmaking structures and procedures, implementation procedures for response options, and provisions for administrative and logistical support required for implementation--are identified "conceptually" but never discussed in detail. Furthermore, the report's discussion is not specific about how Government response actions would be selected and implemented, which individuals or groups would make the ultimate selection decisions, how specific organizations would coordinate their activities, and what implementation procedures would be used by each participating group for different response actions. For example, while the four major functions of the ERWG are stated, no indication is given about how the group would carry out these functions (what specific procedures it would use).

The flowchart and a brief discussion on "emergency response management implementation" provide only limited clarification on some of these questions. The flowchart presents an overview of the ERMS process from the beginning of an emergency through response implementation and termination. The chart describes the emergency through three phases: crisis identification, response decisionmaking, and response monitoring. While the chart gives some additional insight into what various offices do and in what sequence, such a chart can only give a very general indication of the actors involved and their roles. It cannot by itself adequately describe complex tasks such as "develop response options" or "coordinate response implementation," nor can it specify the procedures for carrying out these tasks.

In contrast, a similar flowchart in DOE's "Distribution Management Manual for the Strategic Petroleum Reserve" contains an appendix with detailed information on each box in the flowchart, addressing matters such as specific tasks, who carries them out, and methods of communication among personnel. This type of detailed explanation would have been appropriate in a report discussing "comprehensive" procedures for responding to an energy emergency.

The subsequent discussion of "Emergency Response Management Implementation," which appears to correspond to the three phases illustrated in the chart, does not provide much further information on these matters. The description of these phases emphasizes the coordination of the ERWG with other agencies in crisis identification, response option development, and response implementation. However, the discussion does not clearly specify how this coordination would take place. Specifically, it does not discuss the procedures for obtaining input from other groups or involving them in response implementation, nor does it show how key documents (the Situation Analysis Report, Response Options Paper, and Response Implementation Process) would be prepared. Furthermore, it gives minimal detail on what information these documents would contain.

Interaction between DOE and other organizations is unclear

The procedures report acknowledges the importance of other agencies and groups outside DOE, stating that, "the emergency response management process includes all organizations dealing with energy emergencies, including appropriate Departments, Interagency Groups, Senior Interagency Groups, and Cabinet Councils." However, little information is given about these organizations' roles, how they relate to each other, or how they relate to DOE, the agency with primary responsibility for energy emergency planning.

The report refers to the existence of "a number of formal and informal mechanisms* * *for coordination of activities with respect to energy emergency situations throughout the Federal Government." It notes that the Federal Emergency Management Agency has the lead responsibility for coordination of Federal responses to civilian emergencies and that the Cabinet Council on Natural Resources and Environment "provides overall policy recommendations and coordination on energy matters, including energy emergency preparedness activities." Other bodies such as the Emergency Mobilization Preparedness Board and National Security Council might also become involved.

The report, however, does not clarify what these bodies' roles are in the emergency response management system. For example, it states:

> "The Federal Emergency Management Agency has the lead responsibility for coordination of Federal responses to civilian emergencies. In this regard, the Federal Emergency Coordinator System provides a means for ready communication among Federal Agencies as well as a method for commencing speedy coordination of efforts."

This explanation of FEMA's role, however, gives little insight into the extent of its "lead responsibility" in coordinating a response to an energy emergency. It does not say, for instance, if FEMA would have a role in making policy decisions or recommendations. According to DOE's Acting Deputy Director of the Office of Energy Emergencies, FEMA would be responsible for coordinating physical communication among agencies but would not have a major policy role. DOE, he said, would have to initiate FEMA's involvement in any response activities.

Similarly, the roles of the other coordinative bodies are vague. Neither the flowchart illustrating the ERMS system nor the subsequent scenario demonstrating the three response phases specify the roles of interagency coordinative organizations, where in the process' sequence these mechanisms would come into play, and precisely what the procedures would be for interagency coordination of response activities.

Also missing is how DOE activities relate to those of other organizations with emergency planning responsibilities. The ERWG could conceivably serve this purpose, but is described in the procedures report as "an intra-agency coordinative body" composed of representatives from DOE offices. The report does note that one of the functions of the ERWG is to:

> "* * * analyze and report to the Secretary of Energy, who in turn will report to the appropriate inter-agency groups, Cabinet Councils, and the President on the dimensions and possible impacts of any perceived energy shortage."

However, no mechanism for coordinating among agencies at the working level appears evident from the Report's discussion of the process. The flowchart also leaves this point unclear because all of its references to "coordination" appear to relate to coordination within DOE.

Thus, the procedures report's vagueness on this subject raises questions about how the internal response management process within DOE relates to external organizations, what the roles of other groups in the decisionmaking process are, and how these other groups relate to each other.

Key decisionmaking roles are unclear

While the procedures report discusses who makes key decisions, it does not fully clarify the issue. In discussing the ERMS system, the report states:

> "Naturally, all decisions on actions relating to energy supply disruptions would be made by the Secretary of Energy, or his designee, unless the matter was of such significance that the Secretary deemed it appropriate to raise it with other Members of the Cabinet, or with the President."

This implies that the Secretary of Energy has the responsibility not only to make key decisions when an energy disruption occurs, but also to decide whether the situation merits the involvement of other agencies or the President. However, the flowchart indicates that while the Secretary of Energy would initiate the response to an energy emergency:

--The President or his staff would give initial direction;

--The President's staff would approve and recommend response options; and

--The President would select response options.

According to the Acting Deputy Director of DOE's Office of Energy Emergencies, the actual decisionmaking process in an energy emergency would involve consultation among the Secretary of Energy, the President, and other Cabinet members. Any major emergency would be dealt with by a "group decisionmaker" rather than by an isolated individual. However, this type of consultative decisionmaking is not clearly explained in the report. No procedures for such a process are specified, making it difficult to grasp if and how this potential complex process would work in an emergency.

Thus, it is unclear what kinds of decisions would be made by the Secretary of Energy, which decisions would be left to the Executive Office of the President, and what the decisionmaking roles would be of other participants in the process.

THE EMERGENCY RESPONSE PROCEDURES HAVE NOT BEEN FULLY DEVELOPED

Another general problem with the procedures--which could at least partially account for their vagueness--is that they are incomplete. This is acknowledged by the report, which states that "the Federal Government, and the DOE in particular, is refining its energy emergency management system." More specifically:

--The ERMS process is "still under development."

--The flowchart depicting the ERMS system is described as a "preliminary draft."

--Detailed procedures have not yet been developed to implement many of the response options we discussed earlier. The report acknowledges this, stating that "* * *for each of these programs, the DOE is either currently developing detailed procedures* * *or is studying possible measures that might have potential, or is doing both."

According to the Acting Deputy Director of DOE's Office of Energy Emergencies, the development of the ERMS process and detailed procedures for each specific component is a continuing process--an evolutionary process--that will not be finalized in the sense that a product will be completed and "put on the shelf." The process will continue and the system and procedures will be adapted to respond to changing circumstances. Nevertheless, it is unclear whether this process is essentially in place and being modified or whether its development is just beginning. Thus, we cannot tell from the report whether DOE views future modifications as "fine tuning," or whether it believes substantial improvements are needed.

In summary, the procedures report's description of the administration's energy emergency response procedures omits many details, giving little insight into how or whether they could effectively implement the response options discussed earlier. Moreover, many of these procedures have not yet been finalized.

STATUS OF ENERGY EMERGENCIES PROGRAMS (note a)

	April 1982 estimated completion	Current status	Current estimated completion date
IEA planning:			
NESO Management Plan	Final Plan—2nd Q 1983	Draft 4th Q 1982	End of 2nd Q 1983
Fair Sharing Analysis	Program Plans—4th Q 1982	Initial analysis 4th Q 1982	2nd Q 1983
Supply Right Analyses	Program Plans—4th Q 1982	Initial analysis comp. 3rd Q 1982	Continuing
AST-4	Test—2nd Q 1983	Test guide 4th Q 1982	2nd Q 1983
NATO planning:			
National Oil Board Plan	Final Plan—4th Q 1982	Draft plan 4th Q 1982	2nd/3rd Q 1983
WINTEX-CIMEX Test	Test 1st Q 1983	Test preparation	End of 1st Q or beginning of 2nd Q 1983
SPR planning:			
Distribution Management Plan	Final Manual 3rd Q 1982	Draft/review 1st Q 1983	Final 3rd/4th Q 1983
Use Policy Analysis	Program devel. as appropriate	Partial analysis 4th Q 1982	Continuing
"Phase B" Exercise	Exercise 3rd Q 1982	Exercise preparation	3rd Q 1983
Private oil stocks:			
Short-term Adequacy of Stocks	Final report 3rd Q 1982	Final report 3rd Q 1982	Completed
Incentives for Private Stocks	Final report 4th Q 1982	Report being evaluated by DOE	DOE uncertain about further work

a/Established and actual dates are stated in calendar quarters.

	April 1982 estimated completion	Current status	Current estimated completion date
Vulnerability assessment:			
Electric Power	Classified	Case study draft 1st Q 1983	Continuing
Pipeline Gas	Classified	On hold	Uncertain
Continuity of Government:			
Plan Development	Classified	Draft plan 4th Q 1983	Final 2nd Q 1984
REX-82 BRAVO	Classified	Completed	Completed
Defense preparedness planning:			
Jones Act Waiver Procedures	Final 3rd Q 1982	Draft 3rd Q 1982	Final 3rd Q 1983
DPA Invocation Procedures	Final 4th Q 1982	Draft 4th Q 1982	Final 2nd Q 1983
Major Military Emergency Planning	Continuous	Assessing DOD needs 3rd Q 1982	Completion 3rd or 4th Q 1983
FUELEX Activities	To be determined	To be determined	Uncertain
Mobilization Response Study	Final report 4th Q 1982	DOE involvement discontinued	DOE involvement discontinued
Executive Reserve Training	Continuous	Draft plan/ handbook 1st Q 1983	Uncertain
Emergency response management:			
ESPS (Energy Situation Reporting System)		Data base almost completed	System enhancement complete 4th Q 1984
Management Operating Procedures	Final Handbook 4th Q 1982	Draft Handwork 4th Q 1982	3rd Q 1983
Emergency Operating Facilities	Systems Doc. 4th Q 1982	DOE response control center 4th Q 1982	Completion 3rd Q 1983

	April 1982 estimated completion	Current status	Current estimated completion date
Economic analysis:			
Regional Econometric Modelling	Final report 2nd Q 1982	DOE work cancelled	DOE work cancelled
Economic Effects of Supply Disruptions	Options papers 2nd Q 1983	Drafts 4th Q 1982	Complete 3rd Q 1983
Risk Assessments	Continuous	Continuing	Continuing
Public information planning:			
Emergency Public Information Plan	Final plan 3rd Q 1982	DOE order 4th Q 1982	Final 2nd/3rd Q 1983
Public Information Operations Manual	Oper. Manual 3rd Q 1982	DOE order 4th Q 1982	Final 2nd/3rd Q 1983
Communications Network	Reference guides 4th Q 1983	Network in place and expanding	Continuous
Liaison w/States, local, industry	Continuous	Continuing	Continuous

ATTACHMENT 6

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

B-210236

3 JAN 1983

The Honorable James A. McClure
Chairman, Committee on Energy and
Natural Resources
United States Senate

Dear Mr. Chairman:

Subject: Analyses of the Strategic Petroleum Reserve Drawdown Plan and the Strategic Petroleum Reserve Drawdown and Distribution Report (GAO/RCED-83-85)

In your August 11, 1982, letter you requested that we monitor and analyze documents to be prepared by the administration under the Energy Emergency Preparedness Act of 1982 (EEPA). 1/ Specifically, you requested that we report, within 30 days, on two documents regarding drawdown of the Strategic Petroleum Reserve (SPR) that were submitted to the Congress on December 1, 1982: (1) the Strategic Petroleum Reserve Drawdown Plan (pursuant to section 4(c)) and (2) the Strategic Petroleum Reserve Drawdown and Distribution Report (pursuant to section 6(b)).

The Strategic Petroleum Reserve Drawdown Plan (referred to below as "the SPR Plan") replaces an earlier plan that had been in effect since 1979. The Plan is required to set forth the method of drawdown and distribution of the SPR, under the Energy Policy and Conservation Act of 1975 (EPCA).

1/Pursuant to this request, we have already issued one report, "Status of the Administration's Implementation of the Energy Emergency Preparedness Act of 1982," GAO/RCED-83-33, October 8, 1982. That report discussed whether the statutory requirements and deadlines would be met, and reviewed the extent of inter-agency coordination in developing and approving the reports required by the statute.

The Strategic Petroleum Reserve Drawdown and Distribution Report (referred to below as "the SPR Report") was required by EEPA to contain (1) a description of the "foreseeable situations," which could necessitate distributions from the SPR and (2) descriptions of alternative strategies of distribution (with the theory and justification for each), which could be used to respond to each of these situations. The "foreseeable situations," according to EEPA, include selective and general embargoes, sabotage, war, act of God, or accident.

An important difference between the SPR Plan and the SPR Report is that the Plan is binding on the administration; the administration is required under EPCA, Section 161(b), to abide by the terms of the Plan during any future SPR drawdown. No such requirement commits future administration drawdown decisions to conform to the SPR Report.

SCOPE AND METHODOLOGY

Our objective was to examine how well the two reports complied with the requirements of EEPA. We reviewed the House and Senate Committee Reports, Conference Reports, and hearings to better clarify what the Congress intended to be included in the documents. We also relied on GAO's extensive past and ongoing work on the SPR and energy emergency planning issues as part of our own determination of what constitutes adequate SPR drawdown and distribution planning.

We obtained additional information for this assessment from interviews with, and materials supplied by, officials in DOE's Office of Energy Emergencies and Strategic Petroleum Reserve Office. Additional interviews were conducted with DOE contractors working on this subject and with other experts in energy emergency planning. We also interviewed experts from the National War College to gain further insights into the military contingency planning process, and how this process could relate to contingency planning for SPR use.

DOE's Assistant Secretary for Environmental Protection, Safety, and Emergency Preparedness and his staff cooperated fully and provided us with information needed for this report. Our audit work was conducted in accordance with generally accepted government auditing standards.

THE SPR PLAN AND REPORT GIVE LITTLE SPECIFIC INFORMATION ON HOW THE SPR COULD BE USED IN AN OIL SUPPLY DISRUPTION

Neither the SPR Plan nor the SPR Report provide much specific information about the conditions in which SPR oil could be used in an emergency, including the amount, rate and timing of its use.

In the case of the SPR Plan, the administration explicitly opposed providing specific details on SPR drawdown because it could constrain the President's flexibility in dealing with an emergency. DOE's Assistant Secretary for Environmental Protection, Safety, and Emergency Preparedness, while testifying last May against EEPA's requirement to update the SPR Plan, 1/ stated that "rigid plans for drawdown and distribution make little sense and, if developed and made public, could impair the effective use of the SPR."

The Plan does contain several key provisions about SPR drawdown and distribution (notably a provision for a 10 percent "set-aside" of SPR oil and a rejection of an automatic "trigger" for SPR drawdown), which we discuss in the enclosure. However, many important details are not discussed, particularly about the circumstances that would lead to an SPR drawdown. Emphasizing the high degree of uncertainty involved, the Plan states that "drawdown decisions must be based on estimates of how long the interruption may last, the likelihood of subsequent interruptions, and whether there will be opportunities to refill the SPR between interruptions."

The Plan also contains several SPR use objectives and some "policy considerations pertaining to SPR use." However, these objectives and policy considerations are merely stated; there is no clear connection between them and decisions on when and how to use the SPR.

The lack of detail in the SPR Plan would not be as much of a problem had more information been contained in the SPR Report. Because the Report does not bind the administration to a particular course of action, as does the Plan, it was anticipated that the Report would contain more detail than the Plan. Indeed, the House Committee Report accompanying EEPA (which the Conference Committee adopted) anticipated submission of detailed information to keep the Congress informed of the administration's options for using the SPR. It states, "By requiring a Strategic Petroleum Reserve report rather than a drawdown plan, the Committee intends to assure that the Congress will have all pertinent information regarding the various options available for employing the SPR without requiring the administration to choose, at this time, among those options * * * The report should cover in depth what crises are reasonably foreseeable and include a variety of possible measures for handling them."

The SPR Report delivered to the Congress, however, contains substantially less information than expected. In a brief two

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1/Statement before the Senate Committee on Energy and Natural Resources, May 6, 1982.

and one-half page section, the Report addresses the statutory requirement for an analysis of interruption situations requiring SPR drawdown, and the strategies that could be used for them. Only two scenarios which may result in SPR drawdown are mentioned, and little information is given on what the circumstances are for each one, or on how the SPR would be used. In the first case, for example, a hypothetical "Severe" Case, we do not know how serious this obscure "Severe" case is, nor do we know important details affecting SPR use such as foreign and domestic oil inventories, production, and consumption levels. Furthermore, rather than providing "a description of the strategy or alternative strategies of distribution" which could be used in each situation, as EEPA requires, the SPR Report does not say in either scenario when or how the SPR could be used.

On the same day the SPR documents were released, however, DOE issued a staff paper entitled, "Issues and Analysis on the Use of the SPR." While this document is a compendium of analyses performed by DOE and DOE contractors on SPR-related issues, it does not go much farther than the other documents in supplying information on SPR policy options and strategies to the Congress. This document (1) merely summarizes ongoing research and draws few conclusions, (2) examines only a limited number of variables relating to SPR use, (3) does not link analytical results (e.g. oil price effects of SPR drawdown) with specific SPR use policies, and (4) does not represent DOE or administration policy.

THE ADMINISTRATION'S ARGUMENTS AGAINST COMPREHENSIVE PLANNING ARE UNCONVINCING

The SPR Report alleges that many uncertainties preclude our ability to develop SPR drawdown and distribution strategies. Other administration arguments for avoiding advance planning include the need to preserve Presidential flexibility, and to keep sensitive information secret.

"Uncertainty," in our judgement, is not a valid reason to avoid planning alternative SPR use strategies before we are faced with a serious disruption. First, we would also likely have incomplete information at the outset of a disruption as well as before one. In such a case, advance specification of alternative options could assist decisionmakers in responding more rapidly and effectively to changing conditions. Second, we may never resolve all unknowns; we will inevitably have to develop plans in the face of some uncertainties.

Our past work has shown the administration's legitimate concerns over flexibility and secrecy can be accommodated while still allowing for effective SPR drawdown and distribution planning. Flexibility can be preserved by detailing options for SPR use rather than prescribing a single plan. If an actual disruption occurred, such a plan would serve as a basis for preparing a specific set of action proposals, tailored to the nature of the disruption, and thus preserve flexibility.

The need to keep certain information secret can be addressed by developing effective plans but not releasing sensitive materials to the public. Military contingency plans are continually prepared with sensitive information kept secret. We see little reason why similar procedures cannot be followed for planning SPR use. Indeed, the House Committee Report accompanying EEPA addressed this issue, stating that,

> "The Committee fully recognizes that sections of the report may contain sensitive information and therefore expects that both proprietary information as well as information which may be classified for national security purposes, shall be so identified and may be separately submitted at the same time."

According to DOE's Deputy Assistant Secretary for Energy Emergencies, no classified materials were submitted.

WHY EFFECTIVE SPR DRAWDOWN AND DISTRIBUTION PLANNING IS NECESSARY

Important benefits can be derived from advance SPR use planning. Planning should include both analysis of SPR use strategies and developing drawdown policy options which can effectively counter the serious damage disruptions can cause. While DOE's program and the staff paper mentioned above show that some analysis is being carried out, we see little evidence that drawdown policy options based on the analytical work are being developed.

Among the most important benefits, such advance SPR planning (1) allows informed decisions to be made quickly at the outset of an emergency and (2) provides decisionmakers more information about changing circumstances during a disruption so that adjustments can be made more quickly. Indeed, these benefits have long been recognized by military contingency planners who must continually develop alternative scenarios and response options under extreme uncertainty. Other advantages of advance SPR use planning are that it can help to

--lay the groundwork for coordinated stock drawdown policies with our allies,

--reduce "panic" buying that contributes to rising oil prices when an oil supply disruption occurs, and

--deter an oil embargo by demonstrating our resolve and ability to counteract one.

In summary, the advantages of advance SPR use planning outweigh the disadvantages. The SPR documents submitted by the administration, however, are vague and do not contain such plans or the scenarios and response options on which plans could be based as envisioned by the Congress. Development of alternative SPR use scenarios linked to response options should therefore take place as soon as possible.

There are a number of key issues concerning SPR use policy which flow from our analyses, and are discussed in the enclosure, which we suggest Congress consider when evaluating the administration's Plan and Report. These include:

--The SPR Plan asserts that it does not seem desirable or appropriate to establish an automatic "trigger" to determine when or at what rate the SPR should be used. Should such a trigger be used? If not, should a decision to use the SPR be entirely a Presidential choice, or should Congress be involved in the decision?

--The Plan provides for a maximum 10 percent of SPR oil to be used at the discretion of the Secretary of Energy to alleviate hardship during a severe emergency. Does Congress agree with the concept of this "set-aside"? Is 10 percent the right amount?

--Under the Plan, SPR oil (including the "set-aside" oil) would be sold at market prices. Should all SPR oil be sold at market prices, or should any distribution policies be invoked other than "to the highest bidder?"

--Recent research has determined that an early drawdown of SPR oil during a disruption can most effectively dampen steep oil price increases. Should SPR oil be used this way, or should it be retained for later in disruptions?

--The SPR Report acknowledges that the SPR could be considerably more effective if its use were coordinated with other consuming nations' oil stocks. Can and should the U.S. try to coordinate stock drawdown policies with these nations to counteract an oil supply disruption?

--Both the SPR Plan and Report note that the Reserve could be used to satisfy U.S. obligations under the International Energy Program (IEP), but give little indication on whether it would be used for this

> purpose. Under what conditions should the SPR be used to support the U.S. commitment under the IEP?

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Because our evaluation was requested within 30 days, we did not request agency comments. However, we provided DOE energy emergency preparedness officials with a draft and discussed their reactions with the Deputy Assistant Secretary for Energy Emergencies. The reactions of DOE emergency preparedness officials and our comments thereon are summarized below.

The officials' main concern was that our report did not mention the DOE staff paper which was published at the same time the President submitted the SPR Plan and Report to the Congress. The DOE officials maintained that the staff paper makes up at least partially for the deficiencies we noted in the Plan and Report by providing results of several disruption scenarios. In addition, they stated that our report implied that DOE was doing no SPR use planning.

We are aware that DOE supports analysis on SPR issues and have made changes to reflect this in our report. Indeed, we know of a number of in-house projects and DOE-funded outside research which are noted in the staff paper. However, we disagree with DOE's assertion that the staff paper supplies the kind of information not included in the SPR Plan or Report requested by the Congress.

First, the staff paper's status is ambiguous. It is not a Presidential submission as are the SPR Plan and Report and so does not carry the same weight. Indeed, the paper does not even represent DOE's position. As is noted in the paper's first paragraph,

> "It is strongly emphasized that no statements contained in the reports, studies and analytical works described herein are to be construed to represent DOE's current position on SPR-use or related issues concerning Administration policy."

Thus, it is difficult to see what value should be placed on the paper aside from the information contained on DOE and contractor projects.

Second, we believe that the staff paper does not go significantly further than the other documents in supplying the information and analysis of policy options and strategies requested by the Congress. As noted previously, EEPA calls for the SPR Report to include:

- --foreseeable disruptions,
- --descriptions of alternative strategies to respond to each disruption, and
- --the theory and justification underlying each strategy.

The staff paper merely summarizes ongoing research but draws few conclusions; it examines only a limited number of variables relating to SPR use; and it does not link analytical results to specific SPR use policies. It describes only one disruption which takes place under three different demand and supply elasticity conditions, in three different years, and with three different probabilities of occurence. The paper does not describe alternative response strategies; it simply varies the drawdown from case to case. In addition, because alternative strategies are not discussed, neither are theories or justifications underlying them. The SPR Report explicitly acknowledges that alternative SPR use options have not been developed yet, stating at one point, "...[such] questions inevitably lead to several issues which need to be resolved in order to develop the components of an SPR use strategy."

In summary, although the staff paper provides some useful information on DOE's program of analysis, it does not make up for the deficiencies we noted in the SPR Report and SPR Plan.

Other DOE comments were less significant and have been incorporated in this report as appropriate.

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This report is also being sent today to the Chairman, Subcommittee on Energy and Mineral Resources, Senate Committee on Energy and Natural Resources; Senator Henry M. Jackson; and Senator Bill Bradley.

Sincerely yours,

J. Dexter Peach,
Director

Enclosure

ENCLOSURE

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ANALYSIS OF THE STRATEGIC PETROLEUM RESERVE DRAWDOWN PLAN AND THE STRATEGIC PETROLEUM RESERVE DRAWDOWN AND DISTRIBUTION REPORT

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ANALYSES OF THE STRATEGIC PETROLEUM RESERVE DRAWDOWN PLAN AND THE STRATEGIC PETROLEUM RESERVE DRAWDOWN AND DISTRIBUTION REPORT

CONGRESS HAS EXPRESSED STRONG INTEREST IN EFFECTIVE SPR DRAWDOWN PLANNING

The Energy Emergency Preparedness Act of 1982 (EEPA) and the Energy Policy and Conservation Act of 1975 (EPCA), as well as congressional reports prepared while considering them, all underscore Congress' strong interest in advance SPR use planning.

Section 154(e) of the Energy Policy and Conservation Act of 1975 (EPCA) first required an SPR Plan to be submitted to the Congress, containing "a Distribution Plan setting forth the method of drawdown and distribution of the Reserve" (Sec. 154 (e)(12)). An SPR Plan, transmitted to the Congress in early 1977, made clear that a decision to use the SPR must be an integral part of a comprehensive plan to respond to energy emergencies.

Neither this SPR Plan nor an October 1979 amendment to the Plan, 1/ however, specified how or under what conditions it would be used (i.e., amount, drawdown rate, and timing of use), or how it would be distributed and priced. The October 1979 amendment maintained that it is infeasible and undesirable to specify in advance the precise conditions in which the Reserve would be drawn down.

Congressional reaction to this approach and statements made in shaping EEPA provide clear signals about Congress' expectations for the latest SPR Drawdown Plan and the SPR Report. The House Committee Report accompanying EEPA, for instance, called the 1979 amendment, "extremely general in its approach to SPR distribution," although "Congress accepted this Plan, despite its shortcomings." The Committee further observed that "to date, little information is available to Congress to allow sufficient oversight of potential SPR distribution or to assure Congress that planning and analysis are adequate." It further asserted Congress' role in SPR drawdown planning by stating that the purpose of the SPR report is "to improve the quality of analysis and information available to Congress and the public."

While the Senate version of EEPA did not originally require the same SPR report, the accompanying Senate Committee Report noted that SPR drawdown planning should

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1/U.S. Department of Energy, "Distribution Plan for the Strategic Petroleum Reserve," Washington, D.C., Oct. 29, 1979.

> "address in advance when the President proposes to use the Strategic Petroleum Reserve, and how he would distribute the oil in a drawdown. The response procedure must also address under what circumstances the President proposes to use the Reserve and define effective distribution methods and drawdown rates."1/

Congress expected more detailed analysis in the SPR Report than in the SPR Plan

EEPA provides that the SPR Report contain more detailed information on SPR use than the SPR Plan. The main reason is that legislation commits the Administration to draw down the Reserve in accordance with the SPR Plan. Therefore, an excessively detailed SPR Plan could reduce the Administration's flexibility in using the SPR during an emergency. EPCA, Section 161(b), states that "* * * no drawdown and distribution of the Reserve may be made except in accordance with the provisions of the Distribution Plan contained in the Strategic Petroleum Reserve Plan* * *."

No such legislative requirement binds the administration's drawdown actions to the SPR report. Instead, the focus of the SPR Report was to demonstrate that effective SPR use planning was taking place, without requiring a specific course of action during a drawdown. The House Committee Report emphasized this point, stating that,

> "By requiring a Strategic Petroleum Reserve report rather than a drawdown plan, the Committee intends to assure that the Congress will have all pertinent information regarding the various options available for employing the SPR without requiring the Administration to choose, at this time, among those options."

THE SPR PLAN

The SPR Plan contains a very general discussion on how the SPR would be drawn down during an oil supply interruption. It does, however, specify several key policy decisions on SPR use; notably a rejection of an automatic "trigger" to determine when to use the SPR, and a provision for a 10 percent "set-aside" of SPR oil to be used at the discretion of the Secretary

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1/The Senate Committee Report stated that these elements should be contained in the Comprehensive Energy Emergency Reponse Procedures, which are scheduled to be submitted to Congress on December 31, 1982.

of Energy. These and other features of the Plan are discussed below as follows:

- --When and how the SPR would be used.
- --Contracting and sales: buyer selection and pricing.
- --Operational capabilities to move SPR oil.

When and how the SPR would be used

The Plan contains little guidance on what circumstances might result in a drawdown of the SPR, and what the drawdown rate would be.

Emphasizing uncertainties involved, the Plan states that "drawdown decisions must be based on estimates of how long the interruption may last, the likelihood of subsequent interruptions, and whether there will be opportunities to refill the SPR between interruptions."

A brief section on drawdown rate indicates that "as a general rule, the presumption will be made that the most efficient allocation of oil over time will be made by the market." However, it also indicates that, depending on "U.S. foreign policy objectives" and other characteristics of the disruption, the Government may make the decision to draw down the SPR at a high or low rate, and to adjust the rate during the disruption.

The objectives given for SPR use are extremely broad, as are the "policy considerations pertaining to SPR use." These objectives and policy considerations are merely stated; they are not tied to decisions on when and how to use the SPR. For example, one of these considerations is "the degree, if any, to which the SPR is to be used to support the U.S. commitment under the International Energy Program." 1/ However, noting that there is no requirement that the SPR be drawn down and used to satisfy IEP obligations, the SPR plan does not give any indication of if or how this "consideration" would influence SPR drawdown decisions.

1/Congress has expressed interest in this key issue. The Conference Report on S. 1503, "Standby Petroleum Allocation Act of 1982" (vetoed by the President), stated, "Another issue raised by the conferees is what, if any, is the relationship between the SPR and the potential obligations of the United States under the International Energy Agency Agreements."

An automatic "trigger" for SPR drawdown is undesirable

One substantive issue addressed in the SPR Plan is whether a "trigger" should be used as a basis for determining when the SPR should be drawn down and at what rate. The Plan states:

> "It does not seem feasible or appropriate at this time to establish a specific 'trigger' or formula which will automatically determine if the SPR is to be used and at what interval and rate because of the wide range of unpredictable conditions which might characterize an energy supply interruption."

It states that the President will decide when to use the SPR and at what rate.

GAO agrees that the President should have the flexibility to determine if and how to use a vital resource like the SPR in responding to a crisis. In our judgment, it makes little sense to leave the Nation's security in the hands of a pre-determined formula which could not account for the unique circumstances of a particular disruption. However, we are also concerned about a course at the other extreme: that is, leaving the President abundant flexibility but with little information available to him or the Congress on alternative strategies available and their consequences. Clearly, the constructive strategy is to allow the President broad flexibility, coupled with the detailed planning of alternative strategies that allows quick but informed decisions to be made during a crisis.

Contracting and sales: buyer selection and pricing

According to the Plan, the basic method for distributing SPR oil would be price-competitive sale with awards going to the highest bidders. The sale would be open to all interested buyers. The Plan states that "under the most extreme of circumstances," 10 percent of the SPR oil sold in any calendar month may be distributed in a manner at the discretion of the Secretary of Energy. The Plan does not identify, however, what these "extreme circumstances" are. The price of this "set-aside" oil would still be indirectly determined by competitive sale.

This strong endorsement for price-competitive sale is a significant departure from that of the 1979 Plan, which authorized the use of crude oil allocation and price controls for SPR oil, if "required to avoid serious inequities." The current Plan's response to these past regulatory programs is stated at the beginning of Chapter IV:

> "Experience has demonstrated that Government intervention in the marketplace, in the form of allocation and price controls, has a negative impact on our Nation's ability to cope with severe energy supply interruptions. The failure of allocation and price controls. . . has led this Administration to conclude that market mechanisms must be relied upon to respond to severe energy shortages most efficiently and effectively."

Our September 1981 report agreed that there were many problems with past allocation and price control programs. These programs encountered a host of administrative problems and were complex and burdensome to industry. Our audit of these programs, following the Iranian oil shortfall of 1979, characterized the gasoline allocation program as "chaotic" in responding to the crisis.

A pure free-market approach, however, could also have serious drawbacks, as our September 1981 report noted, particularly the hardships caused by high prices. A market-based approach necessarily allocates both SPR and all other oil to users who are willing and able to pay the going price; it cannot guarantee that vital services or exceptional hardship cases would be able to obtain supplies.

The 10 percent set-aside would be of limited use

The Plan addresses the vital services and hardship problems somewhat by providing for a 10 percent "set-aside" of SPR oil to be used at the discretion of the Secretary of Energy.

In our judgment, this modest set-aside would be useful in providing flexibility without causing large inefficiencies in the market. However, its potential to alleviate hardship during a severe emergency is also limited.

First, until the SPR's maximum drawdown capability increases well above its current 1.7 million barrels per day (MMBD) capacity, the maximum allowable size of the 10 percent set-aside (170 thousand barrels per day (MBD)) would be quite small relative to total oil use. Furthermore, the 170 MBD set-aside would decline to 90 MBD during the second quarter of a disruption and nearly zero during the third quarter as the SPR is exhausted.

Operational capabilities of the SPR drawdown and distribution system

In addition to these policy issues, another question addressed by the Plan is purely logistical--how well can the system respond to an actual disruption? The SPR Plan addresses this issue by describing the physical distribution system's ability to move oil and the procedures that would be followed during drawdown and distribution.

The Plan states that the SPR storage system is designed to make maximum use of private distribution facilities, with the Government supporting industry as appropriate. According to the Plan, the storage configuration provides the capability to distribute the SPR oil through pipelines to refineries or to marine or other terminals for shipment, and the distribution system has sufficient flexibility and redundancy to meet a variety of demands.

Beyond the physical capabilities of the system to distribute the SPR oil, the Plan makes little reference to administrative or managerial capabilities to respond to a shortfall. DOE's Deputy Assistant Secretary for Energy Emergencies, however, told us that more insight into the managerial aspects of the SPR's operational capabilities will be provided in future documents. The first will be the Administration's Comprehensive Energy Emergency Response Procedures Report, scheduled to be delivered to the Congress on December 31, 1982.

The second document is the SPR Distribution Management Manual (DMM). The revised manual will be completed by March 1983, according to the Deputy Assistant Secretary for Energy Emergencies. The manual details an operational methodology for using the SPR in response to an energy emergency. According to the manual,

> "it is a systems integrating tool which bridges the gap between the general policy guidance found in the EPCA and the SPR Plan, and detailed operating procedures contained in office instructions and operating manuals. The manual describes the functions and activities associated with the management of SPR drawdown and distribution. It is intended to provide a comprehensive picture of a generalized response process."

The latest version of the Manual includes a very detailed statement of activities to be undertaken by specific agency officials and the responsibilities of participating offices and individuals, but it does not give guidance on how or when these responsibilities shall be carried out. However, as the introduction to the manual states, "It is not intended to describe the detailed procedures used to deal with the multitude of variables associated with an actual energy emergency. The manual describes what must be done, but not how to do it." One of DOE's planned operational tests of SPR drawdown and distribution will provide a better indication of how well the procedures actually work in practice. The test is scheduled for the first half of

1983. This will be a managerial and administrative functions test to determine the administrative responsiveness to a need for SPR drawdown. While no crude oil will actually be withdrawn in this exercise, DOE will run through the procedures as specified in the revised Distribution Management Manual, with the actual agency officials functioning in the positions and carrying out the responsibilities stipulated in the Manual. The results of the test will be addressed in one of GAO's quarterly SPR reports.

THE SPR REPORT

The SPR Report was required by EEPA to contain (1) a description of the foreseeable situations which could necessitate distributions from the SPR, and (2) descriptions of alternative strategies of distribution (with the theory and justification for each) which could be used to respond to each of these situations.

As we noted earlier, EEPA does not require that the SPR Report commit the administration to any methods or procedures in drawing down the Reserve. Because no such requirement exists, the Report could have contained more detailed analysis of SPR use options than the SPR Plan without constraining the administration's flexibility to use the SPR. However, as we discuss below, the Report contains little useful information.

Congress expected detailed analysis in the SPR Report

The Conference Committee Report provides an indication that the Congress expected detailed analysis of SPR use options, stating that the Report "should cover in depth what crises are reasonably foreseeable and include a variety of possible measures for handling them." It further emphasized the desire to have multiple scenarios and response strategies analyzed, stating that the Report "is also expected to address the alternative strategies for the use of the SPR to handle an interruption of a magnitude substantially greater than the Iranian shortfall, as well as smaller interruptions." Among the other specific items that were asked to be included are:

--A "thorough discussion" of regional impacts to ensure that the SPR can respond to localized emergencies.

--Whether the SPR should be drawn down early or late.

--Whether the oil industry's infrastructure can respond effectively to a long-term drawdown given its present administrative and operational characteristics.

The SPR Report contains far less information than expected

The SPR Report delivered to the Congress contains substantially less information than expected. In fact, it appears to be little more than a bare-bones attempt to comply with the letter of the statute.

The subjects of the Report are addressed in the broadest terms, particularly the "situations" and alternative strategies required by EEPA. Some of these discussions are repeated verbatim in the SPR Plan. The second chapter of the 24 page, two-chapter report is largely a discussion of why comprehensive SPR drawdown planning is infeasible. The result is a report that supplies very little information on how, or whether, we can effectively use the SPR.

Alternative interruption situations and response strategies are inadequate

In a two and one-half page section of chapter I, called "SPR Use Scenarios," the SPR Report addresses the statutory requirement for an analysis of interruption situations requiring SPR drawdown, and the strategies that could be used for them. Rather than the detailed analyses requested by the Congress, the Report presents "some simple scenarios" for "illustrative purposes."

Interruption scenarios are vague

Only two scenarios which may result in an SPR drawdown are mentioned: a hypothetical "Severe" case and a hypothetical "Moderately Severe" case. A third "Mild" case briefly mentioned does not result in a drawdown.

The descriptions of the "foreseeable situations" necessitating an SPR drawdown (required by EEPA, Section 6(b)(1)) are extremely vague. Therefore, they give little insight into what types of situations the administration would consider using the Reserve. While the first scenario provides "some of the major features of this 'Severe' case," many important details are omitted. We do not know, for example, how severe this obscure "Severe" case is, nor do we know important details such as foreign and domestic oil inventories, production, and consumption levels.

The "Moderately Severe" case is also vague. Two key variables mentioned, inventory levels and surge production capacity, are described in the broadest terms ("high" or "low"). Although "the time period of the disruption can be closely estimated," according to the scenario, no estimate is given. Little else is provided, including the size of a "Moderately Severe" disruption.

SPR distribution strategies are inadequately described

Section 6(b)(2) of EEPA requires, for each scenario described, a description of the strategy or alternative strategies of SPR distribution which could reasonably be used to respond to each situation. Specifically, this section requires to be included:

--the theory and justification underlying each strategy,

--an explanation of the methods which would likely be used to determine the price and distribution of petroleum products from the Reserve in any such distribution, and

--an explanation of the disposition of revenues arising from sales of any such petroleum products under the strategy.

This information is not adequately provided in either of the scenarios where SPR drawdown is considered. The first scenario merely alludes to uncertainties involved in making SPR decisions, and concludes only that "this first scenario represents a case of the most severe circumstances under which use of the SPR would be considered." According to the Report, the second scenario "illustrates how dependent the decision to use the SPR is on the circumstances prevailing at the time of the disruption." It does not specify when or how the SPR could be used (including the specific requirements of section 6(b)(2), mentioned above), concluding only that "The SPR would be one of a number of ways to respond to the shortfall."

How the scenarios could have provided more useful information

A more detailed analysis could have provided the Congress with much more useful information on how the SPR can be used.

This would have required more scenarios to be evaluated than the three extremely general ones in the Report. Each scenario could have simulated, in far greater detail, the circumstances of an interruption where the SPR could be used. Thus, rather than using only a "severe," "moderately severe," and "mild" case, these could have been categories of more specific scenarios.

This type of approach could have demonstrated how the "uncertainties" discussed in the Report influence decisions about SPR drawdown. For example, two similar "moderately severe" scenarios could have been analyzed, each simulating different oil consumption levels. A comparison of the results could have shown how this variable would influence decisions on SPR use. Different SPR use objectives (e.g., safeguard military preparedness, or dampen world oil price increases), could also have been analyzed in the same manner to isolate their effects on an SPR response to an interruption.

In addition to expanding the number and types of scenarios, EEPA specifically allows alternative response strategies for each scenario, rather than a single strategy. Thus, given a particular scenario calling for an SPR drawdown, a strategy using a high initial SPR drawdown rate could be compared with one using a low initial drawdown rate--with the "theory and justification underlying each such strategy," as required by Section 6(b)(2).

Such analyses would have provided better insight on how the SPR could be used to deal with specific situations. Furthermore, since the SPR Report is not binding on the administration, as is the SPR Plan, it would not have compromised the administration's flexibility.

The rest of Chapter I contains little new information

Beyond the three scenarios, little other new information is described in Chapter I about SPR drawdown policy. The chapter largely elaborates on the administration's free market philosophy, which is stated in the SPR Plan; reiterates its positions supporting competitive sale of SPR oil and opposing a "trigger" for SPR drawdown; restates some of the administration's statutory obligations under EPCA and EEPA; and repeats other information from the SPR Plan.

Chapter I also lists a number of considerations which should influence SPR drawdown decisions. As with the scenarios, however, they lack the necessary detail to be useful, and are not "operationalized" to show how they would influence SPR drawdown decisions. Many are repeated verbatim from the SPR Plan.

"Uncertainty" is improperly used as an excuse for inadequate SPR drawdown planning

The second and final chapter of the SPR Report entitled, "Decisionmaking Under Uncertainty" essentially argues that uncertainty precludes effective SPR drawdown planning. The Report states that "the strategy development process is beset by a variety of uncertainties which are explored in greater detail in this chapter." It then elaborates on several of these uncertainties, explaining why they complicate SPR drawdown planning.

We do not believe that "uncertainty" is a valid reason to avoid planning alternative SPR use strategies before we are faced with a serious disruption. As we detail below, military planning continually takes place under major uncertainties. Furthermore, as past oil disruptions have demonstrated, uncertainty often exists during emergencies, not just before them. The more information there is on alternative SPR options during the event, the easier it will be for decisionmakers to react to rapidly changing circumstances. The absence of any options will more likely leave judgments about SPR use to ad hoc decisionmaking.

Equally important, we cannot afford to wait until every unknown is resolved before we begin to plan strategies for SPR drawdown. Indeed, we may never resolve all the uncertainties surrounding this complex issue. Having never used the SPR in an emergency, the information is unavoidably limited because there is no previous experience upon which to base future actions. This does not mean, however, that we should not plan ahead for SPR use. Rather, we should do the best we can with what we have; alternative options can be further refined as better information becomes available, as is done in military contingency planning.

OTHER ADMINISTRATION CONCERNS ABOUT SPR USE PLANNING CAN BE ACCOMMODATED

Beyond the concerns over planning under uncertainty, other administration concerns about detailed advance planning are that it could (1) restrict Presidential flexibility in responding to an emergency and (2) expose sensitive information if details of a plan were made public. We believe, however, that the legitimate concerns over flexibility and confidentiality of sensitive information can be adequately accommodated while still allowing for effective SPR drawdown and distribution planning.

The need to preserve Presidential flexibility can be accommodated

Administration officials have stated that a detailed SPR drawdown and distribution plan is unwarranted because the circumstances surrounding a supply interruption are hard to predict, and such a plan would unnecessarily constrain the President's flexibility in dealing with it.

This point was also made by the previous administration in explaining the lack of detail of the October 1979 Amendment to the SPR Plan. Testifying before the House Subcommittee on Energy and Power on November 9, 1979, DOE's former Deputy Assistant Secretary for the Strategic Petroleum Reserve stated,

> "I would like to stress the point that the manner in which we can most productively draw down the Reserve may differ from situation to situation, making the retention of Presidential flexibility and discretion indispensible in order to manage the crisis."

Our September 1981 report addressed this issue, stating that the legitimate need for Presidential flexibility could be preserved by detailing options for SPR use rather than prescribing a single plan. In the event of a disruption, these options could serve as a basis for preparing a specific set of action proposals, tailored to the nature of the disruption, and thus preserve flexibility.

The SPR Report could have been used for detailing such SPR use options. The fact that the Report is nonbinding on future drawdown actions would have further preserved Presidential flexibility.

The need to protect sensitive information can also be accommodated

Our September 1981 report also cited DOE's arguments that making detailed SPR drawdown plans public would reduce their deterrence value, and it could allow adversaries to design methods to overcome SPR "defenses." More recently, DOE's Assistant Secretary for Environmental Protection, Safety, and Emergency Preparedness stated on May 6, 1982, before the Senate Committee on Energy and Natural Resources that "rigid plans * * * if developed and made public, could impair the effective use of the SPR."

We believe, however, that legitimate national security concerns over protection of sensitive information can be better addressed by developing effective plans but not releasing sensitive information to the public. Indeed, alternative military contingency plans are continually prepared with broad outlines of these plans often made public while specific operational plans remain secret. Classified information is also continually shared with appropriate Congressional Committees.

Therefore, the need for secrecy can be accommodated while still allowing for effective SPR drawdown and distribution planning. Indeed, in recommending that EEPA include provisions for the SPR Drawdown and Distribution Report, the House Committee on Energy and Commerce stated,

> "The Committee fully recognizes that sections of the report may contain sensitive information and, therefore, expects that both proprietary information as well as information which may be classified for national security purposes, shall be so identified and may be separately submitted at the same time." 1/

1/Report of the House Committee on Energy and Commerce, #97-585, Part 1, "National Energy Emergency Preparedness Act of 1982," May 24, 1982, p. 12.

According to the Deputy Assistant Secretary for Energy Emergencies, no classified documents were submitted with the SPR Plan and Report.

WHY EFFECTIVE SPR DRAWDOWN AND DISTRIBUTION PLANNING IS USEFUL

In our judgement, important benefits would result from a more comprehensive effort by the administration to plan ahead for SPR use. Among the most important benefits of advance SPR drawdown planning, some of which have been reported in recent GAO work are: (1) it allows informed decisions to be made quickly at the outset of an emergency and in the presence of major uncertainties, and (2) it provides decisionmakers more information to make adjustments during a disruption to accommodate changing circumstances. The existence of these plans, even if the details are not made public, can also assist in coordinating stock drawdown policies with our allies, alleviating panic buying, and deterring oil embargoes.

SPR use planning allows informed decisions to be made quickly under uncertain conditions

As the SPR report notes, many uncertainties exist at the outset of a disruption. It is these uncertainties, however, that are the reason why advance planning is needed.

Many variables must be taken into account during a disruption in order to make informed SPR use decisions. Examples are:

--The severity of the disruption.

--The size of the SPR.

--Size of oil price increases.

--U.S. and foreign oil stocks.

--Actions required by the International Energy Program.

--Political/military actions of other countries.

--Actions of the oil industry.

These and other variables make it difficult to begin analyzing options for action when the disruption occurs, and still arrive at educated and timely decisions. Rather, by analyzing alternative scenarios and response options before a disruption, important information can be developed in advance--lessening the need to rely on ad hoc decisionmaking. This is even more important when considering how quickly circumstances can change during a disruption. Under these conditions, advance planning can provide decisionmakers with useful information rather than forcing them to make decisions with little information about the implications of alternative response options.

Military experiences with advance planning have demonstrated its usefulness

The benefits of advance planning have long been recognized by military contingency planners who continually develop alternative scenarios and response options under extreme uncertainty. The value of this process for the military has important implications for SPR use. Among these benefits, advance planning for military contingencies

--provides an opportunity to identify, organize, and obtain needed resources in advance of an emergency to respond more quickly and effectively,

--helps in establishing and clarifying alternative options to meet objectives, and

--provides a means of training the people who will actually be responding in an emergency so they can respond more quickly and effectively.

Importantly, military planners do not wait for certainty or complete information to begin planning for different contingencies. Since the information will never be complete, they work with the information at hand, knowing that adjustments to plans can be made as more information becomes available. Similarly, SPR use planners can update existing plans as the quality of information improves.

Other advantages of advance SPR use planning

In addition to its usefulness in reducing decisionmakers' uncertainty, advance SPR use planning can have other benefits. Such a planning process could, for example, lay the groundwork for coordinated stock drawdown policies with our allies. The SPR report indirectly alludes to the advantage of coordinated stock drawdown, stating that

> "If the SPR were unilaterally drawn down, the reductions in world (oil) price may be considerably less at the outset of a disruption than if SPR releases were accompanied by immediate releases of foreign stocks."

Research by the Harvard Energy Security Program further supports this, demonstrating that the SPR could exert much greater leverage over rising oil prices during a disruption if its use was coordinated with other consuming nations' stockpiles.

Other advantages of advance SPR use planning are that it can help to

--reduce "panic" buying that contributes to rising oil prices when an oil supply disruption occurs. Past disruptions have shown that a major cause of oil price increases is panic buying by oil distributors and consumers in an effort to assure they will have adequate supplies. Knowledge of when the SPR would be used, or at least that effective plans for SPR use exist, could help reduce price increases attributed to panic buying.

--deter an oil embargo. While detailed operational plans should not be made public for security reasons, public knowledge that contingency plans exist (including broad outlines of these plans) may serve as a deterrent to embargoes. The existence of plans demonstrates our resolve and ability to counteract embargoes and thus may prevent them. Military contingency plans serve a similar purpose, particularly when they are demonstrated through simulations such as war games.

In summary, the advantages of advance SPR use planning, particularly in reducing uncertainty before and during a disruption, outweigh the disadvantages. The SPR documents submitted to Congress by the administration, however, do not demonstrate that such planning has taken place. In our view, development of alternative SPR use scenarios and response options should therefore take place as soon as possible.

The CHAIRMAN. Thank you very much, Mr. Boland. I appreciate your testimony this morning, and I appreciate the very fine work you have been doing in aiding us to cope with some of the questions that are raised. Some time I hope we will be able to come up with some answers rather than just questions, but there was a colloquy with earlier witnesses that dealt with the conflict between our IEA obligations and the current SPR drawdown plan.

Have you analyzed that conflict in your studies?

Mr. BOLAND. Yes, we have, Mr. Chairman. After a few brief remarks I will turn it over to my legal advisers. By virtue of the provisions of the SPR Drawdown Plan, which is a binding requirement for use of the SPR in the event of an emergency, it seems that the administration has taken an option away that the President could use in the event of a severe supply disruption. This could cause some very severe problems for using the SPR to satisfy our obligations under the emergency sharing provisions of the IEA.

I will refer to Mr. Springer for any additional comments he might want to offer.

Mr. SPRINGER. The primary basis of the international emergency sharing system is the voluntary participation by companies. In order to induce them to participate voluntarily one would have to provide them in some way with replacement oil domestically, so that they would not become competitively disadvantaged vis-a-vis other companies in the oil industry. The SPR drawdown plan, which requires competitive sales of SPR oil to the highest bidder and permits anyone to bid for that oil, eliminates any relationship between the international program and what would be happening with the SPR.

Perhaps if the universe of bidders on SPR oil only included those oil companies who participated in the international sharing system by giving up oil, the SPR could be used as a mechanism for providing replacement oil in the domestic market. That has been precluded by the latest drawdown plan except for the 10 percent of the oil which can be distributed at the Secretary of Energy's discretion. This oil more than likely would not be sufficient to provide a meaningful fair share among the companies.

The CHAIRMAN. Is that 10 percent of the total in SPR or 10 percent of the amount which is withdrawn?

Mr. SPRINGER. It is 10 percent of the sales in any one month.

The CHAIRMAN. So that is a very limited quantity?

Mr. SPRINGER. A very limited quantity.

The CHAIRMAN. What is the relationship between the President's emergency powers as delineated in several statutes and the Administrative Procedures Act with respect to rulemaking?

Mr. SPRINGER. With respect to the drawdown plan?

The CHAIRMAN. No—more broadly than just the drawdown plan.

Mr. SPRINGER. We have a congressional inquiry under study now with respect to the SPR drawdown plan.

There are, as you know, specific provisions in the Department of Energy Organization Act as well as the Administrative Procedures Act and additional provisions in the Energy Policy and Conservation Act, all of which should be read together in determining what procedures should be followed.

The **Chairman**. What I am really getting at is what is the time required to change the rules under which SPR is used or to establish the rules under which emergency authority is used?

Mr. **Springer**. One could do that by amending the drawdown plan. The Energy Policy and Conservation Act specifically authorizes the allocation and the fixing of price of any oil drawdown from the SPR. So the statutory authority already exists.

The **Chairman**. For the amendment, but how long does that take? What is the procedure they have to follow to amend the plan once established? They haven't even published rules on the SPR drawdown plan as yet. They intend to do that later this year, but once the rules for the SPR drawdown are established how long does it take them to amend the rules?

Mr. **Springer**. I believe that they would go through the day rulemaking procedures. They would publish the proposed rule in the Federal Register, permit 30 days for comment, and after receiving any comments they can formulate the final rules.

The **Chairman**. So some time, 60 to 90 days after they decide there is a sufficient emergency, that they couldn't respond to under the existing rules, they could then have a change?

Mr. **Springer**. Yes, but as I understand the statute, those regulations would have to be consistent with the existing drawdown plan. If they wanted to use the SPR differently for the IEA sharing sytem, they would first have to come forward with an amendment to the drawdown plan and then promulgate regulations.

The **Chairman**. And what is the procedure that is followed in the amendment to the SPR drawdown plan?

Mr. **Springer**. For every amendment except for this latest amendment 4, the amendment must be presented to Congress, and then there is provision for a one-house veto.

The **Chairman**. So they first must amend the drawdown plan and then amend the rules?

Mr. **Springer**. Yes.

The **Chairman**. And that is a procedure that could go forward simultaneously I suppose, could it not? Would it be possible for them to ask Congress to suggest a change in the drawdown time and simultaneously publish a notice of rulemaking?

Mr. **Springer**. I think so. I am not certain.

The **Chairman**. So we might be able to telescope that timeframe some?

Mr. **Boland**. We would be glad to look at that question.

The **Chairman**. If you would, please; obviously we are concerned about response time.

You have suggested that there is ambiguous authority with respect to the use of the manpower reserves?

Mr. **Boland**. Yes. I would like to emphasize a couple of points in that area:

First the executive manpower reserve was set up under the Defense Production Act, to be used in defense-related emergencies. In a situation where you have an energy emergency, a shortfall if you will, under the Energy Policy and Conservation Act, or the other legislation we have discussed, there is not necessarily a defense-related event. In this case, unless the Congress enacts new legislation, the administration could not use the executive reserve as constituted under the Defense Production Act.

Second, an additional problem is that the Department of Energy Organization Act has very stringent conflict of interest restrictions. There are some concerns as to how you could accommodate those financial disclosures and conflict of interest requirements under the DOE Organization Act with the need for the reserve force that would be needed or desired in time of a national energy emergency.

The CHAIRMAN. Senator Hecht?

Senator HECHT. No questions.

The CHAIRMAN. Senator Ford?

Senator FORD. I just have a couple of questions. I think you have answered this, but I want to give a direct question and get a direct answer.

Do you think the administration is complying with the Energy Emergency Preparedness Act with respect to SPRO fill rates in fiscal year 1983?

Mr. BOLAND. In 1983, Senator, the administration——

Senator FORD. Fiscal year 1983.

Mr. BOLAND. Yes. The administration says it will fill at the rate of 220,000 barrels per day. This is the minimum acceptable rate under the Energy Emergency Preparedness Act of 1982. The act requires a fill at 300,000 barrels a day unless the President decides that it is not in the national interest which he has informed the Congress last December. Therefore, it drops to a minimum fill of 220,000 barrels per day or the highest practicable rate, subject to the availability of appropriated funds.

The administration has not determined what the highest practicable rate is. I heard Secretary Hodel say this morning that there is a difference of opinion within the administration on how available funds should be spent for SPRO activities. All I can say is that we are waiting to see how that decision turns out on the administration's part so that we can analyze it and provide any guidance and assistance to the Congress on a response.

Senator FORD. Would it be in your judgment that they have sufficient funds to go beyond the 220,000 barrels per day?

Mr. BOLAND. Yes. They have money available to go beyond that rate in fiscal year 1983. What I pointed out in my testimony is that in fiscal years 1984 through 1986, they will have unused available capacity. To fill this available capacity would require a rate below 220,000 barrels a day, but yet above what the administration plans to purchase.

Senator FORD. It is my pencil work, and I don't go up against you all, I just throw it up, that they have funds that would accommodate 350,000 barrels per day. Am I in the ballpark?

Mr. BOLAND. I wouldn't argue with your figure, Senator.

Senator FORD. You said earlier that we could draw down 3.5 million barrels of oil per day from SPRO and that would be a little bit more than we are now getting as it related to the OPEC countries?

Mr. BOLAND. Yes. I believe our net imports overall, and that accounts for very little export of oil, but our net imports are about 5 million barrels. About 2 million barrels of that comes from OPEC countries.

Now that is a drastic change from the way we remember the world not too long ago.

Senator **Ford**. Well, we remember the economic condition of the country of not too long ago.

Mr. **Boland**. That's right.

Senator **Ford**. There has been statements given that industry is at 67 or 68 percent of capacity. What if all of a sudden we begin to go back to the 80 or 85 or 88 percent of capacity? What does that do to our imports?

Mr. **Boland**. It would be fair to say with any upturn, and this is on a worldwide basis, there is going to be greater use of oil. While have learned to conserve, I think your point is a good one. Currently, things have loosened up a little bit: however, as we have seen, the energy picture can change very radically.

Senator **Ford**. How much? It could be as bad coming down as it was going up, maybe worse?

Mr. **Boland**. Sure, and I would feel a lot better if we had 500 million barrels of oil in the ground as soon as we can in a manner deemed to be fiscally responsible and in the best national interest.

Senator **Ford**. Well, as prices come down it's an awful good time to buy, isn't it, for this particular purpose with the taxpayers' dollars?

Mr. **Boland**. I would say it is an excellent time to buy. However, you could find a number of people who would say there could be a better time to buy.

Senator **Ford**. Always; I heard a fellow say the other day a stopped clock was even right twice a day.

Mr. **Boland**. I'm not going to argue with that one, either.

Senator **Ford**. That's pretty good, Jim. You might want to use that.

I'm going to ask a question, and I'm not sure you want to answer it or will answer it or can answer it, but on page 5 of your March 4 memorandum you stated, in addition, oil industry lawyers have informally advised the administration that if the Government attempts to implement certain of the energy emergency statutory authority in the manner in which the Justice Department has construed them in its memorandum, elements in the private sector will institute litigation to enjoin implementation.

Now is that your statement? Is that correct?

Mr. **Boland**. Yes. That is the statement in the report that was prepared by our general counsel's office.

Senator **Ford**. All right. Can I ask you who informally advised whom?

Mr. **Springer**. If I might answer that, Senator, this was discussed at the American Bar Association seminar at which the major oil companies and their attorneys were present, as well as Assistant Secretary Vaughan and other officials of both the State Department and the Department of Energy.

Senator **Ford**. So it was laid out pretty clear? That was informal? It wasn't written? They just told you I am going to sue you if you do it and you expect me to do it?

Mr. **Springer**. It was informal and not written down.

Senator FORD. Thank you, Mr. Chairman. This is getting interesting. I thought it would be dull today, but it has proven to be somewhat interesting.

The CHAIRMAN. There might be those who immediately conclude that oil companies act against the national interest or for their own interests unjustifiably.

Are they not always caught in the middle between their shareholders and their royalty owners if they take action that adversely affects the profitability of a company or the amount of oil that is produced from a particular field?

Mr. BOLAND. I would say they do. It is a fair expectation that they have to look to their economic interests and their shareholders. At the same time there is a national interest. Where oil company executives break off and serve one versus the other is a difficult one to determine.

The CHAIRMAN. If the Government were to take action under an authority, regardless of whether they thought it was clear or not, that required a certain oil company to reduce production in one particular area and take oil from another area, and it were later found that the Government didn't have the authority to order that, and the company had relied upon that instruction from the Government, would the royalty owners who had been deprived of income have a right of action against the company, or would they be estopped from that action because of the reliance upon, maybe even good-faith reliance upon Government order?

Mr. BOLAND. I don't know if we have the answer to that.

Mr. KASDAN. I am not sure there is an easy answer either. It involves questions of derivative suits and also questions of whether there was a taking. If the Government action was held eventually to be illegal, this could be a very complicated question and one I am not sure what the ultimate answer would be.

The CHAIRMAN. I don't ask you to make an excessive amount of inquiry or research to answer the question, but if you could do so in writing, I would appreciate that.

Mr. SPRINGER. I might add, Senator, under the Energy Policy and Conservation Act if a contract is broken to carry out the international sharing system, there is a statutory defense for breach of contract, so it is clearly covered in a situation where it is authorized by the statute. But if it were determined that the action was not covered by the statute, that is when the oil company could be in trouble.

The CHAIRMAN. Well, I wish to again thank you for your continuing assistance on this very tough problem. It is a matter of policy, but it is also a matter of law with respect to where our laws are today as well as where they should go.

I would also ask one other question, if you have been asked by others to comment with respect to the extension of the laws which do expire in 1984, and if you have commented with respect to the applicability to this particular problem?

Mr. BOLAND. We have not been asked, Mr. Chairman. We are not working on any analysis dealing with those specific pieces of legislation.

The CHAIRMAN. Thank you very much. Senator Hecht?

Senator HECHT. No.

The **Chairman**. Thank you very much for your questions. There will be other questions submitted in writing for a response in writing. We would appreciate your prompt response.

Mr. **Boland**. Thank you.

[Whereupon, at 11:55 a.m., the hearing was adjourned.]

APPENDIX

RESPONSES FROM SECRETARY HODEL TO ADDITIONAL COMMITTEE QUESTIONS

JAMES A. MC CLURE, IDAHO, CHAIRMAN

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D. MICHAEL HARVEY, CHIEF COUNSEL FOR THE MINORITY

United States Senate
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, D.C. 20510

March 16, 1983

The Honorable Donald Paul Hodel
Secretary
Department of Energy
1000 Independence Avenue, S.W.
Room 7A257
Washington, D.C. 20585

Dear Mr. Secretary:

On behalf of the Committee on Energy and Natural Resources, I wish to express its appreciation for your contribution to our oversight hearing on Energy Emergency Preparedness.

In connection with your testimony before the Committee on March 7, 1983, enclosed are questions for the record. Your response by Wednesday, March 30, 1983, would be appreciated. Your response and any inquiries regarding this request should be directed to the attention of Richard D. Grundy, professional staff member at (224-2564).

Sincerely yours,

James A. McClure

James A. McClure
Chairman

JAM:nm
Enclosures

QUESTIONS FOR THE RECORD

SECRETARY DONALD HODEL

COMMITTEE ON ENERGY AND NATURAL RESOURCES

MARCH 7, 1983

COMPREHENSIVE RESPONSE PROCEDURES

1. In his prepared statement, Secretary Hodel observed that,

> "While GAO has raised some valid concerns in specific parts of the report, we disagree fundamentally with GAO's critique. A written response will be provided by DOE within the near future."

a. Would you supply for the record your response to the General Accounting Office report of 13 February 1983 entitled, "Analysis of The Comprehensive Energy Emergency Response Procedures Report" (GAO/RCED-83-106)?

b. Would you supply for the record your response to the General Accounting Office report of 3 January 1983 entitled, "Analysis of the Strategic Petroleum Reserve Drawdown Plan and the Strategic Petroleum Reserve Drawdown and Distribution Report (GAO/RCED-83-85)?

2. On March 4, 1983, the General Accounting Office provided the Committee with its analysis of the Memorandum of Law transmitted to the Congress pursuant to the Energy Emergency Preparedness Act. Would you also provide your written response for this record?

3. Secretary Hodel's statement pointed out that, "preparedness is a state of constant readiness, which by its very nature can never be static." Precisely for that reason the Energy Emergency Preparedness Act required the DOE report to the Congress on:

> "...how appropriate governmental actions in response of international and domestic energy shortages would be selected and implemented under such options, particularly which official governmental entity would select and implement such actions, and what procedures would be used in doing so."

Last year in testimony before the Interior Appropriations Subcommittee, and subsequently before the Energy and Natural Resources Committee, Assistant Secretary Vaughan set forth in detail a DOE program of energy emergency preparedness incentives, in addition to the Strategic Petroleum Reserve. That testimony and responses for the Record provided an item-by-item schedule with milestones for specified program activities. Subsequently the GAO on 13 February 1983 reviewed the status of the earlier DOE schedule.

a. Would you provide a status report for each of the identified items in that testimony and responses for the record?

b. Would you compare what was accomplished or completed against what was proposed or planned?

c. What are the current schedule and milestones for the aforementioned items as well as any newly identified activities?

d. Would you provide a specific explanation for any slippage in the earlier established schedules, milestones, and decisions?

e. What are the current procedures and plans for resolving open issues?

f. What is the schedule for completion of the initial comprehensive energy emergency response procedures to a point where we know the initial capability of the United States to respond to an energy emergency consistent with the market-based approach advocated by the President and required by law?

4. In the event of an energy emergency, what is the chain of command in this Administration (e.g., the National Security Council versus the Vice-President's Crisis Management Team versus the Department of Energy) for dealing with any required decisions or actions in the event of an energy emergency? In particular, which official governmental entity would select and implement such actions, and what procedures would be used in doing so?

5. In the materials provided for the record, it is indicated that the Department is considering proposals to enhance the existing antitrust defense, and provide a breach of contract defense, for companies participating in domestic voluntary agreements which may be useful during energy emergencies.

a. What specific types of voluntary agreements are envisioned?

b. What specific legislative proposals are being considered?

c. When can the Committee expect to receive such proposals for consideration?

CONFLICT WITH STATE LAWS

6. The Federal government's responsibility is most critical at the beginning of any energy crisis, yet that is when its authority may be most open to challenge. Some 20 States have oil set-aside, or other types of fuel management plans, such as rationing, which may be inconsistent with the Federal market-oriented approach.

Secretary Hodel's statement indicates that DOE has made it clear to State and local governments that undue interference with interstate commerce will be challenged by the Federal government.

In the addendum to Secretary Hodel's statement in the answer to question 8, it is noted that:

> "We do not intend to intrude in State decisions concerning the State and local matters, unless there is concern that State action may impede interstate commerce. In such cases, the Department will work with the Department of Justice to prevent or remove such restrictions.
>
> "Any State allocation or price control program which unduly burdened interstate commerce could be invalidated on constitutional grounds."

However, in its legal memorandum, the Department of Justice acknowledged that it would be difficult to preempt these types of State laws and regulations.

In testimony Assistant Secretary Vaughan stated that DOE would not challenge the application of a State law unless it affected interstate commerce. He also stated that DOE would challenge State laws under the interstate commerce clause of the Constitution in the midst of an energy emergency.

a. In the absence of such legislation how would you propose to deal quickly in the midst of an energy emergency with those State and local programs which are inconsistent with the Federal market-oriented approach?

b. Under your current policy how long would you expect such a challenge to take?

c. Would such challenges require a State-by-state, law-by-law, litigation strategy which could only take several years and one or more Supreme Court decisions?

d. If a producer State were to restrict the export of petroleum produced or refined in that State to another State in order to meet the needs of the producer State, under what circumstance would you judge such action required Federal challenge?

e. Also, would you please provide a discussion by the DOE General Counsel and the Department of Justice of Assistant Secretary Vaughan's comments on the application of the interstate commerce clause to State law in this area?

f. Would you support legislation which would preempt State and local authorities which are inconsistent with the Federal market-oriented program?

EXECUTIVE MANPOWER RESERVE

7. Secretary Hodel's statement acknowledges that the

> "GAO is correct that significant legal issues remain concerning the most effective use of the Executive Manpower Reserve Program to respond to energy supply emergencies."

The statement also acknowledges that these legal issues, which involve antitrust, conflict of interest, and Federal Advisory Committee Act problems, must be resolved in order to maximize the usefulness of the Executive Reservists during (and possibly before) an energy emergency. Secretary Hodel added that "it is true as you assert that we are concerned about the ability of the Emergency Manpower Reserve program to function without some legislative assistance."

In addition, the statement notes that the existance of both conflict of interest and antitrust issues impeded the use of the Executive Manpower Reserve during the 1973 oil embargo.

a. Do you propose to utilize the Executive Manpower Reserve in defense-related energy emergencies?

b. The materials distributed at the recent Federal Emergency Management Agency (FEMA) conference indicate that the Executive Manpower Reserve would only be used in times of war or legally declared defense emergencies. Does DOE agree?

c. What specific coordination exists between DOE and FEMA?

d. Do you propose to utilize the Executive Manpower Reserve at the point where the NATO system is activated?

e. Would you propose to utilize Executive Manpower Reserve in an energy emergency involving activation of the I.E.A. agreement?

f. Would you propose to utilize the Executive Manpower Reserve in an energy emergency which is not defense-related or does not involve activation of the I.E.A. agreement?

g. What amendments of law would be required to enable utilization of the Executive Manpower Reserve in the aforementioned non-defense-related energy emergencies?

h. Without adequate antitrust protection and changes in the conflict-of-interest laws, industry personnel may be understandably reluctant to serve. Would it be useful to create a senior-level advisory committee now to identify ways in which industry/government cooperation and consultation can be improved and to outline the obstacles to such cooperation?

i. In light of these issues what is the earliest that the Congress can expect to receive proposed legislation?

8. In the addendum to your testimony in the answer to question 6, you observed that section 209 of Title 18 of the U.S. Code regarding conflicts of interest imposes criminal penalties on any regular Government employee who receives any salary from a private source as compensation for services as a Government employee. You then observe that while the inhibiting effect of Section 209 on the willingness of an Executive Reservist to serve as a regular employee can't be measured it is a factor that must be considered.

a.What amendments to law would you propose to mitigate, or eliminate, this disincentive to use of the Executive Manpower Reserve?

b. How would the conflict of interest provision of the Department of Energy Organization Act regarding both pre- and post-employment apply to any Reservists assigned to the DOE or involved at any time in its energy emergency preparedness activities?

INTERNATIONAL ENERGY PROGRAM

9. According to the GAO, some oil industry lawyers question whether the President has clear authority to implement a domestic fair sharing system to carry out U.S. obligations under the international energy program.

a. Would you agree that the President may not have clear authority to implement a domestic fair sharing system in order to meet its I.E.A. obligations and section 251 of the Energy Policy and Conservation Act?

b. What changes would you propose to clarify such authority?

10. Under the International Energy Agreement the United States has demand restraint obligations. When the Emergency Energy Conservation Act (EECA) expires so do some Federal demand restraint authorities.

a. What demand restraint authorities would exist after expiration of the Emergency Energy Conservation Act?

b. Without EECA is it likely that the United States can meet its IEA obligations with respect to demand restraint measures?

c. Would you oppose extension of EECA? If so, on what basis?

PARTICIPATION BY U.S. COMPANIES

11. The GAO has expressed concern regarding U.S. company participation in the IEA pointing out that the Executive Branch has not yet completed a new plan of action to improve the basis for company participation in the IEA. In addition, Mr. McCormack noted, "There is a plan of action currently in place and hence that there is a firm legal basis for company participation in the IEA pending completion of a new plan."

However, when the DOE published for public comment a draft of a new plan of action in May 1981, the response was quite heavy. According to Mr. McCormack, the Administration now hopes to use the May-June IEA allocation system test to examine some of the issues involved.

What is the current schedule for completion of the new plan?

12. In the testimony of John McCormack it is suggested that SPR oil could be sold to U.S. companies in compensation for oil which they had diverted to other countries in fulfillment of I.E.A. allocation obligation of the United States.

a. Would the requirement in the SPR drawdown plan for competitive sale of SPR oil not preclude the use of SPR oil for this purpose?

b. How would you otherwise propose to accomplish this purpose?

NATO REQUIREMENT

13. In his testimony John McCormack stated:

> "The IEA system would operate on the margins of a more or less normally functioning world economy. The NATO system would be activated only at a time when a threat to allied security became so serious as to require subordination of economic "business as usual" to mobilization of allied military forces. Hence, we would expect the IEA system to be deactivated at the point the NATO system was activated. On the other hand, ongoing

design of the NATO system is aimed at maintaining maximum flexibility and maximum compatibility with the IEA system, so that we would have the option of melding the two systems together in some way if a particular crisis so warranted."

What is the position of the I.E.A. members on use of the I.E.A. system to meet NATO obligations?

14. In the materials provided for the record, it is indicated that the Department is considering proposals to provide an antitrust defense for voluntary U.S. energy company actions to fulfill United States NATO oil supply commitments and bilateral oil supply agreements.

a. What specific types of voluntary actions are envisioned?

b. What specific legislative proposals are being considered?

c. When can the Committee expect to receive such proposals for consideration?

CURRENT PROTECTION CAPABILITY

15. Based upon current and planned schedules for the storage of oil in the SPR:

a. How many days of emergency supply now (as of December 31, 1982), and quarterly through fiscal year 1983, exist in the Strategic Petroleum Reserve? (Include assumptions.)

b. How many days of comparable "stockpiled" crude and product, as distinguished from "working stocks", now exist in each of the IEA member countries?

16. Based upon your projection of U.S. oil imports in the range of 6 to 7 million barrels per day as we approach 1990 (Answer to previous question 29), on an annual basis, how many days of emergency supply would the Strategic Petroleum Reserve provide (Include assumptions):

a. Under a fill rate of 300,000 barrels per day?

b. Under a fill rate of 220,000 barrels per day?

c. Under the fill rate schedule set forth in Department of Energy budget documents?

d. Are the assumptions used in performing these analyses consistent with those economic projections of recovery assumed in the Fiscal Year 1984 Presidential budget documents submitted to the Congress? If not, how do the assumptions differ? And how would the above answers differ?

17. On several issues this Administration has used as a fundamental component of its arguments the critical role played by private inventories--and the avoidance of action that would discourage the maintenance of such inventories at high levels.

a. What, if any, segments of the private sector--oil industry, or end user--maintain inventories for use in an emergency?

b. Are not companies minimizing their inventories at this time?

c. Is there not a tendency to attempt to rebuild inventory at the onset of a disruption?

d. Doesn't this essentially mean that the private sector's inventory behavior is exactly the opposite of what we would wish regarding emergency preparedness?

e. Are you contemplating any moves to break this cycle?

CURRENT SPR DRAWDOWN CAPABILITY

18. Protection from the adverse effects of supply disruptions provided by the SPR is largely determined by how quickly the government can distribute the proper amount of SPR oil. Advance planning for SPR use is crucial to the Government's ability to act quickly, possibly at the outset of a supply disruption.

Secretary Hodel's statement comments that,

> "It was not possible by December 31, 1982, when the report on comprehensive energy emergency response procedures was submitted, to have completed all of the necessary procedural steps to implement the new SPR drawdown plan. However, we are working as quickly as possible to develop the regulatory and management documentation and procedures to ensure full implementation of the new SPR plan. By the time of the scheduled similation test of the SPR drawdown procedures (called "DIREX-B" currently scheduled to commence in July 1983), we will have prepared all of the essential documentation required for the SPR drawdown."

a. This comment suggests that it will be at least another four months before the procedure will be in place the the new SPR Drawdown Plan could be activated. Is that correct?

19. a. What SPR drawdown strategies are envisioned for the various types of emergencies envisioned by EEPA?

b. What is the procedure to be followed to coordinate SPR drawdown with those of other countries.?

STATUS OF SPR DRAWDOWN REGULATIONS

20. The SPR Drawdown Plan recently transmitted to the Congress now has the force of law. That Plan may be viewed as these sole authorities governing the drawdown of SPR oil.

a. In your judgment, does the Department have any additional authorities not set forth in the SPR Drawdown Plan governing SPR oil, or are the sole authorities available to the Department those specifically set-forth in the drawdown plan?

b. What portions of the SPR Drawdown Plan, if any, are self-executing?

c. What portions of the SPR Drawdown Plan, if any, require the promulgation of regulations?

d. When does the Department propose to promulgate regulations to implement the new Drawdown Plan?

CONDITIONS ON SALE OF SPR OIL

21. The SPR Drawdown Plan proposes a standard contract for the sale of SPR oil.

a. Do you intend that the conditions which will be imposed on the sale of SPR oil will be so as to avoid hoarding of, or speculation with, SPR oil, for example, must any purchaser of SPR oil (i) use it for refining and subsequent product sale or (ii) do so within a specified period of time?

b. Is there any intention to construe the SPR Drawdown Plan to generally prohibit legally any conditions of sale other than transfer of title, price, and point of delivery and specifically to prohibit as a matter of law conditions requiring the use of SPR oil for refining and product sale?

c. Is there any assurance that crude oil once obtained would be refined into product and made available to end-users?

d. What types of crude oil does the Administration plan to make available for auction--a mix representative of refinery needs and capabilities or just one type at any given time?

e. Has the Administration analyzed the capabilities of domestic refineries to handle SPR crude oil, both on a regional and national basis?

f. Has this kind of information been matched up with the mix of SPR oil, which might be made available during a disruption?

g. Is there a serious possibility that by superimposing a whole new major subset of buyers, there could be dramatic shifts in the normal logistics and distribution of crude oil and refined products during the stresses of a disruption?

SPR CRUDE OIL QUALITY

22. In your earlier answer to question 22 regarding whether the Administration intends to sell SPR oil in a commodities futures market you responded:

> "In response to the Notice of Inquiry on the EEPA reports, several commentors recommended consideration of pre-crisis futures or options market for SPR oil, DOE is currently examining this concept and intends to solicit public comments early this Spring on the merits of pre-interruption sales of options for SPR oil. No decision has been made as to whether any particular futures or options proposal is within the scope of the current SPR Drawdown Plan, or if any amendment to that Plan would be necessary."

a. What is the precise status of the DOE, or Administration's, consideration of any such concept?

b. Would you provide for the record an opinion on whether you have the authority generally, or within the scope of the current SPR Drawdown Plan, to establish a pre-crisis futures or options market for SPR oil?

c. Would you supply for the record any memoranda, studies, or other materials in DOE addressing any futures or option concepts for SPR oil?

23. The SPR oil, paid for by the American taxpayer, has a legitimate role in mitigating the adverse effects of disruption-driven oil price increases.

a. Can this objective be achieved if drawdown is postponed while waiting to see if prices alone will reorder the market?

b. Is the Administration's SPR drawdown policy based on injecting SPR oil in sufficient quantities in the refining and distribution system early in a disruption, or holding back until the market system no clearly is longer distributing available supplies effectively?

c. Has the Administration carefully examined the rural petroleum system as a specific subset, in particular regarding limitations on the ability to shift supplies of crude oil or refined product from elsewhere to offset a regional shortage on a timely basis?

d. Does the current absence of final response procedures and SPR drawdown regulations create a potential major barrier which might preclude timely early SPR drawdown until they are finalized?

24. In your earlier answer to question 24, regarding the SPR set aside of up to 10 percent of each months sales to alleviate hardships in a disruption, you responded:

> "The purpose of the 10% special hardship provision is to provide a mechanism by which the Secretary could respond to execeptional situations. Since the range of possible situations which could justify resort to the use of this provision is quite broad, we have not attempted to determine what the appropriate decision might be in a particular set of circumstances. However, it is anticipated that the operation of this provision would be somewhat similar to the operation of the exceptional hardship provision implemented in the past by the FERC with respect the natural gas curtailment situations--that is, on a case-by-case basis."

a. What procedure is proposed for making this case-by-case determination?

b. In light of the requirement in the SPR Drawdown Plan for competitive sale of SPR, how do you propose to make the SPR oil available to "hardship" cases?

c. Since this limitation is 10 percent of any months sales, do you propose to make any SPR oil available to "hardship" cases without the sale of the corresponding 90 percent?

d. Some commentators on the SPR Drawdown Plan complain that (i) the "up to 10 percent" provision is intended as a "no resort" or "no event" set-aside, as opposed to a "last resort" set-aside, and (ii) the DOE vagueness regarding this set-aside is a result of that intention. How would you respond to these complaints?

e. How does the DOE plan to establish that the "up to 10 percent" provision is, in fact, a serious provision of the SPR Drawdown Plan which would be used when needed?

25. Consumers have benefited from highly efficient agricultural sector. This continued success is critically dependent upon an uninterrupted supply of timely fuel supplies at equitable prices.

a. Would you agree that American agriculture is critically dependent upon timely supplies of sufficient fuel for its operation? Has the Administration considered the ramifications of a food crisis in this country, if agriculture is unable to obtain critical fuel supplies during a disruption?

b. In the development of the Energy Emergency Response Procedures and the SPR Drawdown Plan what provision, if any, has been made should agriculture be unable to obtain critical fuel supplies so as to avoid a food crisis?

c. The Administration specifically supports allocation of fuel supplies to the Defense sector, and of crude oil to other nations under the IEA; what is the basis for specifically rejecting this approach as an option for dealing with the needs of other critical economic sectors such as agriculture?

26. In 1982, the composition of SPR oil purchases changed toward high sulfur content crude oils.

a. Has the Administration evaluated the ramifications of this trend on the flexibility and utility of the SPR oil once needed during and emergency?

b. Are the different types and qualities of crude oil being segregated sufficiently during storage so that the "higher sulfur" crude oils do not essentially render the higher quality crudes unusable for most refineries?

ACHIEVEMENT OF 500 BARRELS OF STORED OIL

27. Maintaining a mimimum fill rate of 300,000 barrels per day after fiscal year 1983 would allow the goal of 500 million barrels to be reached by January 1985. Lowering the post-fiscal 1983 fill rate to 220,000 barrels per day would delay reaching this target until July 1985 (see table). According to the GAO the Administration's proposed and implied fill rates of 145,000 barrels per day in fiscal year 1984 and 100,000 barrels per day thereafter would delay reaching this 500 million barrel goal until March 1987. The GAO thus concludes that:

> "The Administration's proposed fill-rates for fiscal years 1984 through 1986 delay by about 2 years the achievement of a 500 million barrel reserve."

Would the Administration's anticipated fill rates for Fiscal Years 1984 through 1986 result in such a two year delay?

28. If the Administration's proposed fill rate for the next three years is compared with the quantities involved in the Mexican oil purchase, plus other contracted volumes, it would appear that the oil entering the SPR during the next three years will be principally "sour" crude.

a. What fraction of SPR additions over the next three years will be "sour" crude?

b. What fraction will be Mexican crude oil?

UNUSED SPR STORAGE CAPACITY

29. According to the General Accounting Office:

> "The proposed fill rates for fiscal years 1984 through 1986 would not even fill available permanent storage capacity. Under the Administration's plans for fiscal year 1984, the average fill rate would be about 145 MBD. If the Administration maintains its current permanent storage expansion plan, this fill rate would result in nearly 18 million barrels of unused permanent storage capacity by the end of fiscal year 1984. If this additonal capacity were filled during the year, the average fill rate could be increased from 145 MBD to about 190 MBD (See table)."

a. Is this a correct figure? If not, what would be the correct figure?

b. Why does the Administration now propose to take delivery of oil purchased in fiscal year 1984 at a higher fill rate rather than delay delivery until fiscal year 1985?

30. Projected oil purchases and prices for fiscal years 1985 and 1986 contained in the Administration's fiscal year 1984 budget imply that the Administration plans to fill the SPR at a rate of 100,000 barrels per day in those 2 fiscal years. This fill rate would result in unused storage capacity of over 26 million barrels and 55 million barrels in fiscal years 1985 and 1986, respectively.

a. Are these figures correct? If not, what are the correct figures?

b. Why doesn't the Administration propose to fill at a higher fill rate, since excess permanent storage capacity would be available?

QUESTIONS SUBMITTED BY THE MINORITY

Oil Prices in a Disruption

31. The DOE report of this Administration entitled, "Domestic and International Energy Emergency Preparedness" states that in a major oil supply disruption (9.4 million b/d) oil prices would shoot up to a peak of $119 per barrel.

Other responses to the Committee indicate that oil prices could go as high as $192 per barrel.

If this occurred would you advocate simply sitting back and permitting the market to work?

Defense Production Act

32. Given that the Defense Production Act expires shortly, and will probably be extended, wouldn't it be appropriate to propose an amendment to the DPA to extend it to cover transportation and terminaling operations for the drawdown of the SPR oil? You suggested in the report to the Congress on "Comprenensive Energy Emergency Response Procedures" that the DPA does not now cover this and it would be useful to have that authority (see page 34). Please elaborate as to the need for this amendment to the DPA.

On December 1, at your confirmation you responded to a question for the record from Sen. Jackson regarding what data the EIA now collects on how much oil inventories U.S. oil companies have on the high seas and their destinations. Your response was that the weekly Crude Watch System provides the necessary data.

a. Isn't the Crude Watch program entirely voluntary? Aren't the oil companies polled by telephone for this information? Isn't it true that this data is not certified, in fact it is not even submitted in writing by the companies? How reliable is it?

b. Moreover, does the Crude Watch program include any price data?

c. Finally, does the Crude Watch program information tell you in fact what oil is headed for the U.S. or contained in Caribbean inventories for U.S. consumption? Doesn't it only tell you what the intended destination was when the oil was exported? Isn't a significant amount of oil traded after it is on the high seas?

Energy Disruption

33. Secretary Hodel, you make many references in your statement to the free market. Let's assume that the Ayatollah Khomeini decided to bomb and destroy the Saudi and Kuwait oil installations because these nations support Iraq financially.

a. How long would it be before oil companies went on allocation in the U.S.? (Note that several U.S. companies went on allocation last summer because inventories were low and no supply shortage existed at all.)

b. Even assuming that neither the Federal government, nor state or local governments stepped into the situation, would we have a free market? Wouldn't there be a nation-wide allocation program imposed by the oil companies, based on historic consumption patterns?

Executive Manpower Reserves

34. Isn't the Executive Manpower Reserves program a response to a wartime situation?

35. In a situation that did not involve a threat to the national defense, but did severely restrict the supply of oil to the U.S. and/or her allies, could you legally mobilize the Executive Manpower Reserves?

36. The documentation available to the Committee indicates that the Executive Manpower Reserves could "help allocate and distribute oil and gas resources from primary inventories and production, through distribution to wholesalers, retailers, and end-users."

How is this consistent with your free-market philosophy?

State Preemption

37. You state that "DOE has made it clear to State and local Governments that undue interference with interstate Commerce will be challenged by the Federal Government."

a. When and how did you make this "clear" to the states?

b. Will your "challenge" be anything other than asking the Courts to strike the State statutes down on Constitutional grounds, which any private litigant can ask the Courts to do as well?

c. Couldn't a Federal preemption statute truly "free" the market of all state and local regulation in this area while under your approach the States could (and would) regulate the market short of "undue interference" of interstate commerce?

d. Under your approach could States have State setaside programs?

Could they have price controls that permitted full pass-through of costs but limited profits to what is "reasonable"?

e. Could the States regulate price in any manner at all?

SPR

38. a. Secretary Hodel, on August 3, 1982, the President signed the Energy Emergency Preparedness Act. Is there any doubt in your mind that this Act is intended by Congress to establish a minimum SPR fill rate that may be higher but in no case is lower than 220,000 b/d?

b. Isn't it also true that the President's FY 1984 budget request for the SPR for funds to be used to fill the SPR in FY 1984 is zero? (All of the funds requested in FY 1984 are for oil deliveries in FY 1985.)

c. Obviously, you can't achieve 220,000 b/d if you don't ask for the money, can you -- unless you are relying on the Congress to provide funds you didn't request.

SPR Drawdown Plan

39. Secretary Hodel, in your SPR Drawdown Plan, Amendment No. 4, submitted Dec. 1, 1982, it appears that foreign oil companies can bid on the SPR oil. The report states:

"The sale would be open to all interested buyers,"...

"It is intended that the universe of eligible buyers will be as large as possible to ensure efficient distribution of SPR oil."

After submission of this report we received memos about existing law that suggest that foreign companies might not be able to export the SPR oil.

What is the policy of the Administration -- will they permit all interested buyers to bid on the SPR oil?

SPR

40. a. Secretary Hodel, don't the Administration's outlay figures in the FY 1984 budget for the years FY 1985 - FY 1988 indicate an intention to fill the SPR at only about 100,000 b/d, not 220,000 b/d?

b. Will the Administration seek to repeal the SPR fill rate provisions of EEPA or will you simply ignore the law?

41. The Energy Emergency Preparedness Act requires the President to include in his Comprehensive Energy Emergency Response Procedures Report a description of the sequence of measures which the President would employ. Your report does not appear to contain the sequence of measures you would employ. Is there some reason whey such an ommission is permitted under EEPA?

42. The Administration has proposed, as reflected in its FY 1984 budget, to reduce the SPR fill rate from the minimum mandated level of 220,000 barrels per day to 145,000 barrels per day in FY 1984 and only about 100,000 barrels per day in fiscal years 1985-1988. What analysis has DOE performed that substantiates the basis for this proposed slowdown in the SPR program?

43. In May 1982, the Secretary of Energy submitted a report to the Congress on the appropriate size of the SPR. The report endorsed completion of a 750 million barrel SPR. Has anything caused you to change this conclusion?

44. On March 8, 1982, Secretary Hodel submitted to Senator Jackson a copy of a memorandum to the Secretary from the General Counsel entitled "Minimum Required Rate of Fill of the SPR". How does this memorandum affect the Administration's fill rate schedule for the SPR from FY 1983 to FY 1988?

45. The DOE is supporting several studies on the use of options and futures to be sold with respect to SPR oil, either prior to a disruption or shortly after it occurs.

a. To what extent do you believe you now have sufficient legal authority to sell:

(i) option on the purchase of SPR oil

(ii) "futures" on the purchase of SPR oil

(iii) the SPR oil with extended delivery dates (3-6 months).

b. Is there any intent in supporting these studies to find ways to "lock up" the oil in the SPR either prior to or shortly after a disruption in order to preclude the Government's use of non-market approaches, e.g., allocation, for distributing the SPR oil?

QUESTIONS AND ANSWERS
FOLLOWING THE
MARCH 7, 1983 HEARING
BEFORE THE
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

WITNESS: DONALD PAUL HODEL
SECRETARY, U.S. DEPARTMENT OF ENERGY

COMPREHENSIVE RESPONSE PROCEDURES

Question 1: In his prepared statement, Secretary Hodel observed that,

> "While GAO has raised some valid concerns in specific parts of the report, we disagree fundamentally with GAO's critique. A written response will be provided by DOE within the near future."

a. Would you supply for the record your response to the General Accounting Office report of 13 February 1983 entitled, "Analysis of The Comprehensive Energy Emergency Response Procedures Report" (GAO/RCED-83-106)?

Answer: As stated in Secretary Hodel's prepared testimony before the Committee on Energy and Natural Resources on March 7, 1983, DOE is preparing a response to the General Accounting Office's report on the Comprehensive Energy Emergency Response Procedures Report. We will be happy to provide a copy to the Committee when it is available.

Question: 1. b.	Would you supply for the record your response to the General Accounting Office report of 3 January 1983 entitled, "Analysis of the Strategic Petroleum Reserve Drawdown Plan and the Strategic Petroleum Reserve Drawdown and Distribution Report" (GAO/RCED-83-85)?
Answer:	DOE's response to the General Accounting Office's report on the new Strategic Petroleum Reserve "Drawdown" (Distribution) Plan and the Strategic Petroleum Reserve Drawdown and Distribution Report was attached to Secretary Hodel's written testimony before the Senate Committee on Energy and Natural Resources on March 7, 1983.

Question 2: On March 4, 1983, the General Accounting Office provided the Committee with its analysis of the Memorandum of Law transmitted to the Congress pursuant to the Energy Emergency Preparedness Act. Would you also provide your written response for this record?

Answer: The following analysis has been furnished by the Department of Energy's Office of General Counsel.

The Justice Department's Memorandum of Law was prepared in consultation with the Department of Energy, in accordance with the requirements of the Energy Emergency Preparedness Act. We believe that the Memorandum of Law is a comprehensive, accurate and useful analysis of the statutory authorities available to the President to respond to petroleum supply interruptions.

The General Accounting Office's report on the Memorandum of Law (GAO Report B-210236, March 4, 1983) generally agrees with our assessment, describing the Memorandum as "complete and accurate." However, GAO's analysis indicates concern over the adequacy of the authorities available to the President:

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>
> Our review of the Justice Department's memorandum disclosed that the different statutes do not use common terms or language to trigger the authorities....
>
> What emerges from the memorandum is a legislative mosaic of discretionary statutory authorities, many of which are not specifically targeted to cope with oil crises. These authorities do not include...authority to allocate and control prices of petroleum products in the civilian market.... (p. 3)

From this, GAO concludes that "relying on statutory authorities which have different triggers and which are not aimed specifically at oil emergencies may result in implementation problems." For example, GAO asserts that since the "authorities under the Defense Production Act...are generally only available in connection with national defense and defense preparedness activities," the Executive Manpower Reserves could not be activated during a "severe energy supply interruption,"

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the trigger for many of the emergency provisions of the Energy Policy and Conservation Act, Pub. L. 94-163, 42 U.S.C. section 6201 et seq., the Emergency Energy Conservation Act, Pub. L. 96-102, 42 U.S.C. section 8501 et seq., and the Powerplant and Industrial Fuel Use Act of 1978, Pub. L. 95-620, 42 U.S.C. section 8301 et seq.

In September 1981 GAO issued a report to the Congress that reflected the same concerns and concluded that the "U.S. Government is almost totally unprepared to deal with disruptions in oil imports." ("The United States Remains Unprepared for Oil Import Disruptions," FMD-81-117, September 29, 1981.) GAO's concern over the adequacy of the emergency authorities available to the President apparently is based on the belief that the Federal Government will need not only the current authorities but additional authorities as well in the event of an energy emergency, and that these authorities will be utilized to intervene in the marketplace. Thus, there is a fundamental difference between the Administration's energy emergency preparedness

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policy and GAO's perception of the Federal Government's role in planning for and implementing energy supply disruption response measures. The Administration's policy places primary reliance on market mechanisms coupled with self-help programs--for example, the development of adequate private and Government petroleum stockpiles--to deal with energy emergency conditions. This policy has greatly reduced previous disincentives to private self-insurance efforts, increased conservation, reduced consumption and dependency on oil imports, and has provided increased incentives for domestic production. The Administration is convinced (and past experience demonstrates) that this policy best serves the welfare and interests of the American people. It is based on the principle that markets, which are most efficient and effective in allocating resources during "normal" times, will also serve as the best allocators during supply disruptions, even severe disruptions.

The GAO analysis also exaggerates the legal significance of the different statutory triggers. In general, the exaggeration arises from a failure to recognize that even though the circumstances that provide a basis for exercise of a particular authority differ from statute to statute, many of those circumstances broadly overlap, and in any particular emergency situation, facts may justify action under a number of those statutes.

With respect to the Defense Production Act (DPA) authorities, GAO fails to recognize that the DPA treats serious disruptions in energy supplies as being "defense related." As explained more fully in response to Question 7.g. below, recent amendments to the DPA have made it clear that the authorities provided by the Act are intended to be available to foster energy preparedness and to deal with serious energy supply problems. Accordingly, with respect to the Executive Manpower Reserves, the President would have broad discretion under the DPA, in the event of any serious disruption in petroleum or other energy supplies, to determine that an energy emergency exists that could threaten the

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national security or national defense preparedness, and that would justify activation and use of the Reserves. In short, while the triggering provisions of the various authorities are somewhat different, we do not believe this detracts from their adequacy in the event of an energy emergency.

Question 3: Secretary Hodel's statement pointed out that, "preparedness is a state of constant readiness, which by its very nature can never be static." Precisely for that reason the Energy Emergency Preparedness Act required the DOE report to the Congress on:

> "...how appropriate governmental actions in response of international and domestic energy shortages would be selected and implemented under such options, particularly which official governmental entity would select and implement such actions, and what procedures would be used in doing so."

Last year in testimony before the Interior Appropriations Subcommittee, and subsequently before the Energy and Natural Resources Committee, Assistant Secretary Vaughan set forth in detail a DOE program of energy emergency preparedness incentives, in addition to the Strategic Petroleum Reserve. That testimony and responses for the Record provided an item-by-item schedule with milestones for specified program activities. Subsequently the GAO on 13 February 1983 reviewed the status of the earlier DOE schedule.

a. Would you provide a status report for each of the identified items in that testimony and responses for the record?

Answer: A current status report of energy emergency preparedness programs is attached.

Attachment to 3.a.

STATUS OF ENERGY EMERGENCY PREPAREDNESS PROGRAMS a/
March 1983

	Current Status	Current Estimated Completion Date
IEA planning:		
NESO Management Plan	Draft 4th Q 1982	3rd Q 1983
Fair Sharing Analysis	Initial analysis Under Review	2nd Q 1983
Supply Right Analysis	Initial analysis Under review 3rd Q 1982	Continuing
AST-4	Test guide 1st Q 1983	2nd Q 1983 (May 2-June 17, 1983)
NATO planning:		
National Oil Board Plan	Draft 4th Q 1982	3rd Q 1983
WINTEX-CIMEX Test	Test preparation	Completed 2-24 to 3-9-83
SPR planning:		
Distribution Management Plan	Draft/review 1st Q 1983	Final 3rd/4th Q 1983
Use Policy Analysis	Partial analysis 4th Q 1982	Continuing
"Phase B" Exercise	Exercise preparation	3rd Q 1983 (July 11 to Aug. 19, 1983)
Foreword Sales/Futures/ Options Analysis	NOI to be published 2nd Q 1983	1st Q 1984

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a/ Established and actual dates are stated in calendar quarters.

March 1983

	Current Status	Current Estimated Completion Date
Private oil stocks:		
Short-term Adequacy of Stocks	Final report 3rd Q 1982	Completed
Incentives for Private Stocks	NOI to be published 2nd Q 1983	DOE uncertain about further work
Cooperatives/Futures Analysis	Contractor Work underway	Future work depends on contractor study results
Vulnerability assessment:		
Electric Power	1st Case study draft complete 1st Q 1983; 2nd case study beginning	Continuing
Strategic Petroleum Reserve Support Systems	Electric utility system review draft in preparation	3rd Q 1983
Pipeline Gas	On hold	Uncertain
Continuity of Government:		
Plan Development	Draft plan 4th Q 1981	Final 3rd Q 1983
REX-82 BRAVO	Completed	Completed
Defense preparedness planning:		
Jones Act Waiver Procedures	Draft 3rd Q 1982	Final 3rd Q 1983
DPA Invocation Procedures	Draft 4th Q 1982	Final 3rd Q 1983
Major Military Emergency Planning	Assessing DOD needs 3rd Q 1982	Completion 3rd or 4th Q 1983; depending upon NSC tasking

March 1983

	Current Status	Current Estimated Completion Date
FUELEX Activities	To be determined	Uncertain
Mobilization Response Study	Project superseded by general military energy emergency planning effort	
Executive Reserve Training	1st draft plan/ handbook/complete 1st Q 1983	Continuous
Emergency response management:		
ESRS (Energy Situation Reporting System)	Data base almost completed	System enhancements complete 4th Q 1984
Management Operating Procedures	Draft handbook 4th Q 1982	3rd Q 1983
Emergency Operating Facilities	DOE response coordinating center 4th Q 1982 established	Completion 2nd Q 1983
Economic analysis:		
Regional Econometric Modelling	DOE work cancelled	DOE work cancelled
Economic Effects of Supply Disruptions	Drafts 4th Q 1982	EEPA Report due Aug. 3, 1983
Risk Assessments	Continuing	Continuing
Public information planning:		
Emergency Public Information Plan	DOE order 4th Q 1982	Final Plan 2nd/3rd Q 1983
Communications Network	Network in place and expanding	Continuous
Liaison w/States, local, industry	Continuing	Continuing

3.b. Would you compare what was accomplished or completed against what was proposed or planned?

Answer: In general, many of the energy emergency preparedness programs were delayed due to the unanticipated requirements of the Energy Emergency Preparedness Act of 1982. For example, the SPR planning activities were delayed in order to reflect in the new SPR "Drawdown" (Distribution) Plan, Amendment No. 4 in other SPR activities.

However, a number of projects have been completed including REX-82 BRAVO, the Wintex-Cimex Test, draft Executive Reserve handbooks, reappointment of 47 NDER members, and private oil stocks activities. The DOE response coordinating center has been established. Other projects are on schedule, such as plans for AST-4, and the Energy Situation Reporting System data base.

3.c. What are the current schedule and milestones for the aforementioned items as well as any newly identified activities?

Answer: See attachment to answer to Question 3.a.

3.d. Would you provide a specific explanation for any slippage in the earlier established schedules, milestones, and decisions?

Answer: The April 1982 "Status of Energy Emergency Preparedness Programs" was based upon the staff and resources available and the priority of various activities at that time. Our program schedules are continuously updated and adjusted to accommodate unanticipated requirements and changing priorities. As you know, the preparation of the seven reports to Congress required by the Energy Emergency Preparedness Act of 1982 (EEPA) dictated substantial changes in the schedule for the energy emergency preparedness programs.

Approximately 40 professionals and support staff were dedicated to EEPA tasks for the first four months of fiscal year 1983. It is anticipated that some 7 professionals and support staff will be involved in the final EEPA report through August 1983. Accordingly, EEPA related activities will consume some 10 FTEs during fiscal year 1983, mostly within the Emergency Planning subprogram, representing nearly 50 percent of the total staff in this area. While

3.d Contd

work on these EEPA required reports did serve to advance some of our planned emergency preparedness activities it also caused some delay in activities planned for fiscal year 1983 including defense preparedness planning, Strategic Petroleum Reserve preparedness planning, Emergency Energy Conservation Act - mandated public information activities, and in-house energy systems supply vulnerability analyses.

Question 3.e. What are the current procedures and plans for resolving open issues?

Answer: Within available manpower and funding constraints, the Department plans to resolve on a continuing basis the emergency preparedness issues that are outstanding. Through regularly scheduled meetings between the Assistant Secretary for Environmental Protection and the Secretary, those issues are addressed, resolved, or continue to be "open".

3.f. What is the schedule for completion of the initial comprehensive energy emergency response procedures to a point where we know the initial capability of the United States to respond to an energy emergency consistent with the market-based approach advocated by the President and required by law?

Answer: The "Comprehensive Energy Emergency Response Procedures," report submitted to Congress on December 31, 1982, clearly describes the capability of the U.S. to effectively respond to an energy emergency. As Secretary Hodel stated in his March 7, 1983, testimony,

> [T]he United states is fully prepared to respond to any energy emergency situation, and our level of preparedness today is better than at any time in the past decade.
>
> In making this statement I do not mean to imply that our emergency preparedness program is perfect, nor am I suggesting that we are standing still on continuing improvements to the program. Nevertheless, I believe it is important to look towards ways we can all work together to improve the President's market-based energy emergency preparedness program. . . .

Question 4: In the event of any energy emergency, what is the chain of command in this Administration (e.g., the National Security Council versus the Vice-President's Crisis Management Team versus the Department of Energy) for dealing with any required decisions or actions in the event of an energy emergency? In particular, which official governmental entity would select and implement such actions, and what procedures would be used in doing so?

Answer: As Secretary Hodel stated in his March 7, 1983, testimony, "We respectfully submit that it is unreasonable and impossible to detail precisely upon whom and to what relative degree the President would rely to make what particular decision in all possible future emergency situation that may arise."

The "Report to the Congress: Comprehensive Energy Emergency Response Procedures," submitted in accordance with the requirements of the Energy Emergency Preparedness Act, describes the organizational entities and individuals who likely would be involved in the decisionmaking process concerning a possible energy emergency situation.

Question 5: In the materials provided for the record, it is indicated that the Department is considering proposals to enhance the existing antitrust defense, and provide a breach of contract defense, for companies participating in domestic voluntary agreements which may be useful during energy emergencies.

a. What specific types of voluntary agreements are envisioned?

Answer: While no decisions have been made on specific voluntary agreements, the types of voluntary agreements which permit private sector participation in the International Energy Program and previous voluntary agreements under the Defense Production Act, such as the 1951 "Voluntary Agreement for Supply of Petroleum to Friendly Foreign Nations," are similar to those now under consideration. See the answer to Question 14.a. below, for a more complete discussion.

Question 5.b.: What specific legislative proposals are being considered?

Answer: As discussed in the "Report to the Congress: Comprehensive Energy Emergency Response Procedures," we are completing a general review of voluntary agreements for domestic as well as international activities.

5.c. When can the Committee expect to receive such proposals for consideration?

Answer: These proposals are under review within the DOE and no decision has been made as to whether or when such proposals will be submitted to OMB for review, coordination and clearance with other Executive Branch agencies.

CONFLICT WITH STATE LAWS

Question 6: The Federal government's responsibility is most critical at the beginning of any energy crisis, yet that is when its authority may be most open to challenge. Some 20 States have oil set-aside, or other types of fuel management plans, such as rationing, which may be inconsistent with the Federal market-oriented approach.

Secretary Hodel's statement indicates that DOE has made it clear to State and local governments that undue interference with interstate commerce will be challenged by the Federal government.

In the addendum to Secretary Hodel's statement in the answer to question 8, it is noted that:

> "We do not intend to intrude in State decisions concerning the State and local matters, unless there is concern that State action may impede interstate commerce. In such cases, the Department will work with the Department of Justice to prevent or remove such restrictions.
>
> "Any State allocation or price control program which unduly burdened interstate commerce could be invalidated on constitutional grounds."

However, in its legal memorandum, the Department of Justice acknowledged that it would be difficult to preempt these types of State laws and regulations.

In testimony Assistant Secretary Vaughan stated that DOE would not challenge the application of a State law unless it affected

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interstate commerce. He also stated that DOE would challenge State laws under the interstate commerce clause of the Constitution in the midst of an energy emergency.

a. In the absence of such legislation how would you propose to deal quickly in the midst of an energy emergency with those State and local programs which are inconsistent with the Federal market-oriented approach?

b. Under your current policy how long would you expect such a challenge to take?

c. Would such challenges require a State-by-state, law-by-law, litigation strategy which could only take several years and one or more Supreme Court decisions?

d. If a producer State were to restrict the export of petroleum produced or refined in that State to another State in order to meet the needs of the producer State, under what circumstance would you judge such action required Federal challenge?

e. Also, would you please provide a discussion by the DOE General Counsel and the Department of Justice of Assistant Secretary Vaughan's comments on the application of the interstate commerce clause to State law in this area?

f. Would you support legislation which would preempt State and local authorities which are inconsistent with the Federal market-oriented program?

Answer: The following discussion has been provided by the DOE General Counsel, and concurred in by the Department of Justice:

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While the Federal Government has adopted a market-oriented approach for managing an energy emergency and has urged this approach on State and local governments, the Administration believes that the States should be free to develop their own programs so long as those programs do not impermissibly impede interstate commerce or are not preempted by Federal laws or regulations. Although it is thought that a State price control or allocation program is likely to be self-defeating, this does not mean that the Federal Government should force its approach on the States either through legislation or litigation, so long as the State program does not unduly impede interstate commerce and is not preempted by Federal laws or regulations.

The Federal Government would intervene, for example, if a producing State attempted generally to restrict the flow of goods produced or refined in that State to other States. Such an attempt by a State to gain advantage at the expense of other States by embargoing or restricting the free flow of

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petroleum or natural gas or coal in interstate commerce would be clearly unconstitutional. The Supreme Court decided this very issue in the context of energy supplies early this century, Pennsylvania v. West Virginia, 262 U.S. 553 (1923); Oklahoma v. Kansas Gas Co., 221 U.S. 229 (1911), although a more recent case suggests, in dicta, that some State restrictions premised upon the need to conserve and preserve resources to protect the health of the citizens of the State but "not simply the health of the economy" might be permissible. Sporhase v. Nebraska 102 S.Ct. 3456 (1982). For a more exhaustive discussion see pages 74-76 of the Memorandum of Law, "Legal Authorities Available to the President to Respond to a Severe Energy Supply Interruption or Other Substantial Production in Available Petroleum Products," prepared by the Office of Legal Counsel of the Department of Justice, pursuant to the requirements of the Energy Emergency Preparedness Act.

Were litigation necessary in such a case, we believe that preliminary relief should be

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available immediately and should continue in force throughout the course of any such litigation, which could take a number of years to go to final judgment.

It is useful to note that the passage of Federal legislation would not eliminate the possibility or, more pessimistically, the likelihood of lengthy litigation. Ten years after passage of the Emergency Petroleum Allocation Act, the scope of the preemption provision in that Act remains unsettled. See Eagerton v. Exchange Oil and Gas Corp., 404 So. 2d 1 (Ala. 1982), prob. juris. noted sub nom. Exxon Corp. v. Eagerton, 102 S.Ct. 2231 (May 17, 1982) (No. 81-1020); Tully v. Mobil, 102 S.Ct. 1047 (1982).

EXECUTIVE MANPOWER RESERVE

Question 7: Secretary Hodel's statement acknowledges that the

> "GAO is correct that significant legal issues remain concerning the most effective use of the Executive Manpower Reserve Program to respond to energy supply emergencies."

The statement also acknowledges that these legal issues, which involve antitrust, conflict of interest, and Federal Advisory Committee Act problems, must be resolved in order to maximize the usefulness of the Executive Reservists during (and possibly before) an energy emergency. Secretary Hodel added that "it is true as you assert that we are concerned about the ability of the Emergency Manpower Reserve program to function without some legislative assistance."

In addition, the statement notes that the existence of both conflict of interest and antitrust issues impeded the use of the Executive Manpower Reserve during the 1973 oil embargo.

a. Do you propose to utilize the Executive Manpower Reserve in defense-related energy emergencies?

Answer: Yes. It is likely that we would in some cases.

7.b. The materials distributed at the recent Federal Emergency Management Agency (FEMA) conference indicate that the Executive Manpower Reserve would only be used in times of war or legally declared defense emergencies. Does DOE agree?

Answer: Initially, we are revitalizing the Reserves to be available to respond to declared national defense emergencies. DOE is currently in the process of evaluating other possible uses for the Executive Reserve program, but no decisions on such other uses have been made at this time.

7.c. What specific coordination exists between DOE and FEMA?

Answer: DOE coordinates with FEMA through the FEMA Interagency National Defense Executive Reserve (NDER) Committee. DOE also actively participated in the National NDER Conference held March 7-9, 1983, in which over 100 invited DOE Reservists, candidates and observers attended. In addition, DOE follows the FEMA guidance for the Reserves set forth in FPC Circular 24.

As a general matter, there is close coordination between DOE and FEMA on the NDER program, and on a wide range of issues, from nuclear safety to energy systems vulnerability and Emergency Mobilization Preparedness Board matters. FEMA also operates the Interagency Emergency Coordinating Group, of which DOE is a part.

7. d. Do you propose to utilize the Executive Manpower Reserve at the point where the NATO system is activated?

Answer: It is likely that we would.

Question 7.e. Would you propose to utilize Executive Manpower Reserve in an energy emergency involving activation of the I.E.A. agreement?

Answer: DOE is currently in the process of evaluating the possible uses of the Executive Manpower Reserve program, but no decisions on the use of this Reserve.

Question 7.f. Would you propose to utilize the Executive Manpower Reserve in an energy emergency which is not defense-related or does not involve activation of the I.E.A. agreement?

Answer: DOE is currently in the process of evaluating the possible uses of the Executive Manpower Reserve program, but no decisions on the use of this Reserve.

Question 7g:	What amendments of law would be required to enable utilization of the Executive Manpower Reserve in the aforementioned non-defense-related energy emergencies?
Answer:	I am advised by the Office of General Counsel of the Department of Energy that, because the Defense Production Act treats serious disruptions in energy supplies as being "defense-related," no amendments of law would be required to permit activation of the Reserves in the situations posited.

The Justice Department's Office of Legal Counsel made this point in its November 15, 1982, Legal Memorandum submitted pursuant to the Energy Emergency Preparedness Act:

> The purpose of the DPA is to provide for the promotion of the national defense by assuring that adequate productive capacity and supply exist to meet national defense needs. With one exception, exercise of authority provided by the DPA must be linked to the needs of the

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national defense or of national defense preparedness programs. The President has broad discretion to determine what those needs are and how the DPA authorities may be used, consistent with the specific requirements of each provision of the statute.... In particular, in his determination of what the national defense requires, it is clear that the President may consider, inter alia, the potential impact of severe shortages in petroleum supplies available to the United States. In the Energy Security Act..., Pub. L. No. 96-294, §102, 94 Stat. 617 (1980), Congress specifically designated energy as a "strategic and critical material" within the meaning of the DPA's Declaration of Policy, and added language to that Declaration to emphasize that preparedness programs, as well as actions to expand productive capacity and supply in order to assure the availability of energy supplies, are linked to the national defense:

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In view of the present international situation and in order to provide for the national defense and national security, our mobilization effort continues to require some diversion of certain materials and facilities from civilian use to military and related purposes. It also requires the development of preparedness programs and the expansion of productive capacity and supply beyond the levels needed to meet the civilian demand, in order to reduce the time required for full mobilization in the event of an attack on the United States or to respond to actions occuring outside of the United States which could result in the termination or reduction of the availability of strategic and critical materials, including energy, and which would adversely affect the national defense preparedness of the United States. In order to insure the

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> national defense preparedness which is essential to national security, it is also necessary and appropriate to assure domestic energy supplies for national defense needs.

50 U.S.C. app. §2062 (amendment emphasized). The Conference Report explained:

> The "Declaration of Policy" is amended to make it clear that it is necessary and appropriate, indeed essential, "to assure domestic energy supplies for national defense needs."

H.R. Rep. No. 1104, 96th Cong., 2d Sess. 187 (1980).

* * * *

The DPA does not define what constitutes an "emergency" for purposes of activation of the Reserve. Section 710(e), however, must be read in light of the purpose of

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the DPA to protect and promote the national defense, as expressed in the Declaration of Policy. Subsection (e), authorizing the Executive Reserve, was added to the DPA in 1955. At the same time, the Declaration of Policy was amended to include a specific congressional finding that the nation's mobilization program requires the development of preparedness programs and the expansion of productive capacity and supply "in order to reduce the time required for full mobilization in the event of an attack on the United States." See S. Rep. No. 696, 84th Cong., 1st Sess. 9 (1955). The Senate Report draws a direct link between authorization of the Executive Reserve and the Declaration of Policy:

> This provision [now section 710(e)] supports the added emphasis placed on preparedness for a period of full mobilization in the Declaration of Policy.

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Id. at 8. The legislative history of subsection (e) thus makes clear that establishment and training of the Reserve and employment of Reservists is specifically intended to further the national defense preparedness aims of the DPA.

Therefore, activation of the Reserve would depend on the existence of an emergency that, in the language of the Declaration of Policy, "would adversely affect the national defense preparedness of the United States." 50 U.S.C. app. §2062. Likewise, although Section 710 does not limit in haec verba the functions that can be performed by Executive Reservists in the event of activation, the inclusion of authority for the Executive Reserve in the DPA and the legislative history of that section make clear that those functions are limited to achievement of the national defense preparedness and response purposes of the DPA.

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> As discussed above, however, the DPA's Declaration of Policy expressly contemplates that disruptions in energy supplies may affect the national defense interests of the United States.... Therefore, the President has broad discretion, in the event of a disruption in petroleum supplies, to determine that an energy emergency exists that could threaten national security or national defense preparedness and that would therefore justify activation and use of the Executive Reserve to assist in meeting the emergency. (pp. 21-22, 35-37) (Emphasis supplied, except in quoted Declaration of Policy; footnotes omitted)

Thus, the President would have broad discretion, in the event of any serious disruption in petroleum or other energy supplies, to determine that an energy emergency exists that could threaten the national security or national defense preparedness, and that would justify activation and use of the Executive Reserve. Accordingly, we believe that the General

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Accounting Office is incorrect in its assertion that the law does not permit activation of the Executive Manpower Reserves during a "severe energy supply interruption" (see GAO Report B-210236, March 4, 1983, at p. 3).

In addition, it should be noted that DOE's Executive Reserve Organizations are staffed by two categories of employees: National Defense Executive Reservists authorized by section 710(e) of the Defense Production Act, to whom the above discussion applies, but also, so-called "Without Compensation" Government Employees ("WOC's"), authorized by section 710(b). The service of WOC's is not limited to times of emergency, and WOC's can therefore be employed for a variety of preparedness tasks, such as assisting in planning, providing counsel and assistance in conducting exercises or seminars, or assisting state and local officials to develop emergency preparedness plans and programs. WOC's may be employed, of course, only if the employing department

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or agency head certifies that he has been unable to obtain a person with the qualifications necessary for the position on a full-time, salaried basis, and that the appointment is necessary and appropriate to carry out provisions of the Defense Production Act. WOC's may be appointed only to advisory or consultative positions, except that they may be appointed to decision-making (but not policy-making) positions if they are found to possess outstanding experience and ability not obtainable on a full-time, salaried basis.

7.h. Without adequate antitrust protection and changes in the conflict-of-interest laws, industry personnel may be understandably reluctant to serve. Would it be useful to create a senior-level advisory committee now to identify ways in which industry/government cooperation and consultation can be improved and to outline the obstacles to such cooperation?

Answer: We currently are evaluating other useful mechanisms for involving the private sector in energy emergency preparedness activities, such as advisory committees. DOE has received considerable support for such an advisory committee from the public in response to DOE's Notice of Inquiry on the reports required by the Energy Emergency Preparedness Act, as well as through specific recommendations from the National Petroleum Council and other organizations.

7.i. In light of these issues what is the earliest that the Congress can expect to receive proposed legislation?

Answer: No decision has been made at this time regarding proposed legislation to address antitrust and conflict of interest concerns. We presently estimate that the earliest any such legislative proposals would be ready for submission to Congress is late Fall 1983.

Question 8: In the addendum to your testimony in the answer to question 6, you observed that section 209 of Title 18 of the U.S. Code regarding conflicts of interest imposes criminal penalties on any regular Government employee who receives any salary from a private source as compensation for services as a Government employee. You then observe that while the inhibiting effect of Section 209 on the willingness of an Executive Reservist to serve as a regular employee can't be measured it is a factor that must be considered.

a. What amendments to law would you propose to mitigate, or eliminate, this disincentive to use the Executive Manpower Reserve?

b. How would the conflict of interest provision of the Department of Energy Organization Act regarding both pre- and post-employment apply to any Reservists assigned to the DOE or involved at any time in its energy emergency preparedness activities?

Answer 8a: The subject of possible amendments to the conflict of interest provisions of Title 18 of the U.S. Code currently is under consideration within the Executive Branch, and the precise specifications of such amendments have not been completed.

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8b: As set forth in the testimony addendum in answer to question 6, except for the requirement of public disclosure of energy concern interests (applicable to all Department employees unless specifically exempted), the conflict of interest provisions in Title VI, Part A of the Department of Energy Organization Act (DOE Act), Pub. L. 95-91, 42 U.S.C. sections 7211-7218, would apply only to those Reservists activated as "supervisory employees" (primarily GS-16's and above, contracting officers, and the top two officials of field offices).

The pre-employment provisions of the DOE Act are found at sections 604 and 606. Section 604 requires a "supervisory employee" to file a one-time report identifying each energy concern from which the employee received compensation of $2500 or more in each of the five calendar years preceding employment with the Department. This section complements the provisions of section 606 which prohibit a "supervisory employee," during his or her first year of service in the Department, from participating in certain Department proceedings involving present or former energy employers.

The post-employment provisions of the Act, contained in section 605, prohibit a "supervisory employee" for one year after leaving the Department from appearing before the Department, or communicating with the Department, with the intent to influence its action regarding any particular matter pending before the Department. Supervisory employees are also required by section 605 to file a report describing all energy concern employment for each of the two years following termination of Department service. The reports are due on May 15 of the two calendar years following the year in which they leave the Department.

The Secretary is authorized to waive the participation prohibitions of section 606 if, in a particular circumstance, application of the statute would work an exceptional hardship upon the employee or be contrary to the national interest. Waiver of the one-year post-employment bar is authorized by section 605

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in connection with a particular matter in a scientific or technological field if the Secretary certifies in writing that a former supervisory employee possesses outstanding scientific or technological qualifications and that the national interest would be served by such action.

Section 602 prohibits a supervisory employee from receiving compensation from, having any official relation with, or having any pecuniary interest in an energy concern. However, section 602 authorizes the Secretary to waive this divestiture requirement if he finds that its application would create exceptional hardship for the employee.

Question 9: According to the GAO, some oil industry lawyers question whether the President has clear authority to implement a domestic fair sharing system to carry out U.S. obligations under the international energy program.

a. Would you agree that the President may not have clear authority to implement a domestic fair sharing system in order to meet its I.E.A. obligations and section 251 of the Energy Policy and Conservation Act?

b. What changes would you propose to clarify such authority?

Answer: We do not agree. As the Department's General Counsel stated in his opinion of August 10, 1981, concurred in by the Department of Justice (copy attached), which was submitted for the record of the Committee's July 20, 1981, hearing:

> [I]t is clear that section 251 would permit a Presidential finding that it is "necessary" to impose a mandatory limited domestic allocation system in order to secure the swift and sure cooperation of

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oil companies in fulfilling our international obligations. .

Consequently, we do not believe that any clarifying language is needed.

Senate Committee on Energy and Natural Resources
July 20, 1981
Witness: Thomas Newkirk
Page 17, Line 10.

Department of Energy
Washington, D.C. 20585

20 AUG 1981

MEMORANDUM

Subject: Authority of the President under Section 251 of the Energy Policy and Conservation Act to Require Limited Domestic Petroleum Allocation in Support of the United States' Obligations Under the International Energy Program

This memorandum addresses the question of whether section 251 of the Energy Policy and Conservation Act, 42 U.S.C. 6271, (EPCA) authorizes the President to allocate crude oil among domestic oil companies if he deems such action necessary to enable the United States to meet its international allocation obligations under the Agreement on an International Energy Program (IEP). 1/ We conclude that section 251 provides such authority. 2/ This authority does not, however, encompass comprehensive petroleum price and allocation controls of the type initiated under the Emergency Petroleum Allocation Act (EPAA).

Section 251 of EPCA provides in pertinent part:

> (a) The President may, by rule, require that persons engaged in producing, transporting, refining, distributing, or storing petroleum products, take such actions as he determines to be necessary for implementation of the obligations of the United States under chapters III and IV of the international energy program insofar as such obligations relate to the international allocation of petroleum products. Allocation under such rule shall be in such amounts and at such prices as are specified in (or determined in a manner prescribed by) such rule. Such rule may apply to any petroleum product owned or controlled by any

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1/ TIAS 8278, November 18, 1974.

2/ Section 251 authorizes the President to require international allocation of petroleum. This opinion is concerned with the possible domestic aspects of such international allocation.

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> person described in the first sentence of this subsection who is subject to the jurisdiction of the United States, including any petroleum product destined, directly or indirectly, for import into the United States or any foreign country, or produced in the United States. . . . (Emphasis supplied.)

For purposes relevant here, the IEP establishes a system in which the participating nations agree to share the oil available for importation in the event of a supply disruption. In the event the international petroleum allocation system is activated during or in anticipation of a severe petroleum supply disruption, a participating nation whose normal domestic production and actual net imports would exceed its "supply right" shall have an "allocation obligation" that requires it to supply, directly or indirectly, the excess to other participating nations. *See* IEP Articles 7, 12-14. The IEP requires that each nation take the necessary measures in order that allocation of oil will be carried out, but does not prescribe any particular measures. *See* IEP Article 6.

The starting point for statutory construction is, of course, the words of the statute itself. *United States v. American Trucking Associations, Inc.*, 310 U.S. 534, 543 (1940). Here, the plain language of the statute provides that the President may require persons in the petroleum industry to "take such action as *he determines to be necessary*" to enable the United States to meet its obligations under the IEP relating to the international allocation of petroleum. The only limitation in section 251 on the scope of the President's authority is the requirement that the President determine that the required action is necessary to enable the United States to meet its international obligations. 3/

Thus, if the President determined that it was necessary to initiate a domestic crude oil allocation and price control system in order to meet our international allocation obligations under the IEP, he could do so pursuant to

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3/ We note that EPCA section 251 also expressly permits the President to regulate the price of allocated oil if he determines such action necessary to enable the United States to meet its IEP obligations relating to the international allocation of oil.

was adopted. Nothing in the legislative history, however, suggests that section 251's authority was to be limited to mandatory international allocation orders or that the EPAA was to be the exclusive authority for any domestic allocation. 4/

In a case arising under section 232(b) of the Trade Expansion Act, 19 U.S.C. 1862(b), the Supreme Court had occasion to interpret the words "such action ... as [the

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4/ It may be that Congress assumed that any domestic allocation would be carried out under the authority of the EPAA rather than section 251, but even had this assumption been made it would not suggest that Congress intended the EPAA to be the *exclusive* authority for any domestic crude oil allocation or that Congress intended to limit section 251 to direct international allocation. Indeed, where Congress intended an authority to be exclusive, it specifically so provided in section 251. *See* section 251(c)(2); *See also* EPCA section 252(h), *inter alia*, making section 252 *the sole* authority for oil company participation in certain aspects of the IEP.

Section 252 of EPCA provides an antitrust defense to oil companies participating in accordance with that section in the international allocation and information provisions of the IEP. The legislative history of section 252 seems to preclude the availability of that defense for domestic activities of oil companies relating to international allocation. S. Rep. No. 94-26, 94th Cong., 1st Sess. 43 (1975). It could be urged that sections 251 and 252 were intended to be companion provisions and that, accordingly, the limitations on the scope of 252 indicates a legislative intent similarly to limit the scope of 251. Apart from the absence of any manifestation of such a legislative intent, this argument fails to recognize that there is a substantial difference between granting authority to the President to require limited domestic allocation in support of our international obligations and granting oil companies antitrust immunity to enable them to manage the domestic petroleum market. Congress is far more likely to do the former than the latter. Indeed, in section 252(h) of EPCA, Congress expressly precluded use of the Defense Production Act immunity provision for any allocation program under EPCA or under the EPAA.

section 251. For example, without suggesting that the President would make such a determination in any particular circumstances, it is possible that the President could find such domestic allocation necessary in order to obtain the participation of United States' oil companies in meeting the United States' allocation obligations under the IEP. This situation could arise if the participating companies believed that otherwise they would bear a disproportionate burden, either vis-a-vis each other or vis-a-vis non-participating companies, in domestic markets because of their participation in allocating cargoes that they controlled to foreign destinations. In this regard, the Governing Board of the International Energy Agency, which under Article 6 of the IEP is charged with deciding on "the practical procedures for the allocation of oil and on the procedures and modalities for the participation of oil companies" in the IEP, has called for participating nations to establish so-called domestic "fair sharing" arrangements under which companies giving up oil for international allocation are not disadvantaged, relative to other suppliers in the same country, as far as access to that country's available petroleum supply is concerned. The Governing Board considers such arrangements necessary to assure the participation of oil companies in the international oil sharing system and it would not be unreasonable for the President to make a similar determination.

Despite the plain language of section 251 and the nexus between domestic crude oil sharing and our international obligations, certain questions may arise concerning the scope of section 251.

Arguably, the absence of express legislative history supporting the use of section 251 for domestic crude oil allocation if necessary to meet our international obligations suggests that Congress did not intend in section 251 to authorize such allocation. Here, however, where the language of section 251 is clear, the absence of legislative history concerning its use for limited domestic allocation does not imply that its plain meaning should be truncated. While it cannot be denied that the legislative history materials generally describe the use of section 251 to mandate international allocation of oil, rather than possible domestic allocation, this is explained simply by the fact that comprehensive domestic price and allocation controls were in existence under the EPAA when section 251

President] deems necessary." FEA v. Algonquin SNG, Inc., 426 U.S. 548 (1976). There the statute authorized the President to take "such action ... as he deems necessary" to adjust imports that threaten the national security. In that case, an import fee imposed by the President under section 232(b) was challenged on the ground that the section authorized only a "direct" limitation on imports by use of a quota. The Supreme Court held that the statutory language clearly granted the President a measure of discretion in determining what actions were necessary, id. at 561. The Supreme Court noted that while most of the congressional debate on the provision was in the context of granting the President the power to impose quotas, nothing in the debates reflected an understanding that the President's authority was so limited, id. at 567. Consequently, we believe this case supports our reading of section 251 notwithstanding the lack of legislative history materials expressly confirming our conclusion.

Moreover, in determining congressional intent with respect to particular language, it is appropriate to assess other provisions of the same statute. Section 251(c)(1) provides that any rule under section 251 shall be consistent with the objectives in section 4(b)(1) of the EPAA. Those objectives virtually all relate to domestic concerns, such as protection of the public health, safety and welfare, maintenance of public services and agricultural production, preservation of a competitive petroleum industry, allocation of suitable oil to refiners in the United States and equitable distribution of crude oil and products among all regions and areas of the United States and all sectors of the petroleum industry. The reference in section 251 to these domestic concerns reflects Congress' awareness that international allocation of necessity would have domestic consequences and, at the least, indicates that section 251 can be employed to take those domestic actions that prove necessary, as a practical matter, effectively to fulfill our international obligations.

It may be questioned whether section 251's authority to impose mandatory international allocation makes "necessary" any limited domestic allocation. Put differently, if the President can require United States petroleum companies to allocate internationally, or has other possible means for meeting United States IEP obligations, arguably it never would be "necessary" to allocate crude oil domestically to ensure company participation in international allocation.

As the Supreme Court recognized in *FEA* v. *Algonquin SNG, Inc.*, *supra*, however, where any one of several different actions may achieve the same end and the statute provides that the President may take such action as *he* determines necessary, the President has the discretion to decide among those alternatives, even where the alternative chosen is not the most "direct" means of achieving the goal. The cases teach that such a Presidential decision, in an area affecting our foreign relations, is entitled to substantial deference. *See generally*, *e.g.* *Chicago & Southern Airlines, Inc.* v. *Waterman Steamship Corp.*, 333 U.S. 103 (1948); *United States* v. *Curtiss-Wright Export Corp.* 299 U.S. 304 (1936).

That the President might find it more appropriate or effective to utilize a domestic fair sharing mechanism to achieve voluntary cooperation by oil companies rather than mandatory orders for international allocation is certainly possible given the nature of the IEP sharing system. That system rests primarily on voluntary company cooperation and participation, recognizing that without the active, willing support of international oil companies the IEP sharing system would be well nigh impossible to accomplish. The Congress recognized this fact in its enactment of section 252 of EPCA, affording the companies an antitrust defense to facilitate their participation in the IEP system.

In this context, it is clear that section 251 would permit a Presidential finding that it is "necessary" to impose a mandatory limited domestic allocation system in order to secure the swift and sure cooperation of oil companies in fulfilling our international obligations. It would be inconsistent with the contemplated operation of the IEP system and with the broad language of section 251 to limit the authority in that section to mandatory international allocation orders; the IEP itself does not make such orders the sole means by which member nations may fulfill their obligations and the IEA's plans for dealing with severe disruptions place primary reliance on voluntary company participation facilitated, if necessary, by domestic fair sharing procedures.

The Assistant Attorney General in charge of the Lands and Natural Resources Division has advised us that the Department of Justice concurs in the conclusions and the analysis in this memorandum.

R. Tenney Johnson

R. Tenney Johnson
General Counsel

Question 10:	Under the International Energy Agreement the United States has demand restraint obligations. When the Emergency Energy Conservation Act (EECA) expires so do some Federal demand restraint authorities. a. What demand restraint authorities would exist after expiration of the Emergency Energy Conservation Act? b. Without EECA is it likely that the United States can meet its IEA obligations with respect to demand restraint measures?
Answer 10.a.:	Our analysis leads us to believe that price induced conservation will suffice to meet our "demand restraint obligations." Nevertheless, following the expiration of the Emergency Energy Conservation Act (EECA), Pub. L. 96-102, 42 U.S.C. section 8501 et seq., statutory authority for demand restraint measures will remain available under sections 201 and 202 of the Energy Policy and Conservation Act (EPCA), Pub. L. 94-163, 42 U.S.C. sections 6261 and 6262, providing for establishment and implementation of Federal energy conservation plans. These plans may be implemented upon a

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discretionary Presidential finding that they are required by a severe energy supply interruption or by the need to fulfill the obligations of the United States under the Agreement on an International Energy Program (IEP). Demand restraint also could be accomplished or facilitated by restricting supplies of imported crude oil and petroleum products under the Trade Expansion Act of 1962, Pub. L. 87-794, 19 U.S.C. section 1801 *et seq.*, upon finding that such imports threaten national security. Or, most important, as indicated above, it can be accomplished by relying upon market forces to reduce consumption.

In addition, Article 16 of the IEP Agreement allows a participating country to substitute for demand restraint measures, public and private stocks held in excess of 90 days of emergency reserves. Since the level of stocks maintained in the U.S. exceeds and is expected to continue to exceed the 90-day emergency reserve obligation, a drawdown of those stocks could satisfy the demand restraint commitment. Of course, under EPCA section 161, 42 U.S.C. section 6241(e), the President could use reserves in the Strategic Petroleum Reserve "in fulfillment of obligations of the United States under the international energy program," although he is not obliged to do so.

10.b.: Yes. Expiration of EECA will not impair in any way the ability of the United States to meet its IEA obligations with respect to demand restraint. The Administration will rely primarily on market mechanisms coupled with private and Government petroleum stockpiles to deal with energy emergencies in general and, in particular, to meet its IEP demand restraint obligation. Under this approach, oil consumption during energy emergencies will fall as consumers, in response to rising oil prices, increase their energy conservation efforts and switch to alternative energy sources. Markets, which are most efficient and effective in allocating resources during normal times, also will serve as the best allocators during supply disruptions.

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Our significant progress in reducing oil consumption and imports since price decontrol in January 1981 is in large part evidence of the effectiveness of market mechanisms.

Question 10: Under the International Energy Agreement the United States has demand restraint obligations. When the Emergency Energy Conservation Act (EECA) expires so do some Federal demand restraint authorities.

c. Would you oppose extension of EECA? If so, on what basis?

Answer: As stated in the EECA Annual Report to Congress on November 24, 1982, the Administration is committed to an energy emergency prepardeness policy of primary reliance on the market, unfettered by counterproductive Government controls and excessive Federal involvement. Therefore, the Administration recommends that Title II, Part A of EECA be permitted to expire on July 1,1983.

PARTICIPATION BY U.S. COMPANIES

Question 11: The GAO has expressed concern regarding U.S. company participation in the IEA pointing out that the Executive Branch has not yet completed a new plan of action to improve the basis for company participation in the IEA. In addition, Mr. McCormack noted, "There is a plan of action currently in place and hence that there is a firm legal basis for company participation in the IEA pending completion of a new plan."

However, when the DOE published for public comment a draft of a new plan of action in May 1981, the response was quite heavy. According to Mr. McCormack, the Administration now hopes to use the May-June IEA allocation system test to examine some of the issues involved.

What is the current schedule for completion of the new plan?

Answer: As noted in Mr. McCormack's testimony, a Plan of Action currently is in effect. Work on a new Plan of Action is to resume following the IEA's Fourth Allocation Systems Test (AST-4), which will be conducted in May and June, and completion of the AST-4 test appraisal.

On March 21, 1983, DOE published for public comment (48 Federal Register 11760) a draft of a proposed letter of approval for U.S. oil company participation in AST-4. In the notice we explained that while the proposed approval letter was similar to that issued for the previous IEA systems test, AST-3, held in the fall of 1980:

> Several changes have been made based on experience of the U.S. Government in monitoring AST-3, and operating procedures and recordkeeping requirements have been simplified and made less burdensome.
>
> In addition, a new form of approval has been adopted for the provision of confidential or proprietary company information or data by participating companies. In previous tests, the types of information or data which could be disclosed in the tests without need for specific U.S. Government approval were enumerated, and specific approval was required for the disclosure of other

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> types of information or data. Paragraph 9 of the proposed approval letter likewise enumerates types of information or data which may be disclosed, but under paragraph 9(n) of this letter, it also would be permissible to disclose for the purpose of AST-4, "such additional***types of information or data as may be needed on a timely basis in implementing the [IEA's] oil allocation procedures" if a request for advance approval of such disclosure were not feasible. However, prompt notice of any such additional disclosure must be given to U.S. Government monitors observing the test along with an explanation of why advance approval could not be obtained, and approval for the continued submission or exchange of such information or data can be terminated. (48 FR 11761)

As Mr. McCormack testified, AST-4 will provide an opportunity to consider whether similar provisions should be adopted in a Plan of Action.

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As in AST-3, a test appraisal will be prepared at the conclusion of AST-4. One unique feature of this particular systems test is the role of a "Group of Experts", engaged as consultants to the IEA, who will witness the test and participate in appraising it. The Experts will be invited to comment on a wide range of issues affecting the IEA's oil sharing system, including issues which have a bearing upon the needed scope of antitrust protection for participating U.S. oil companies.

Promptly after completion of the AST-4 appraisal process, interagency deliberations on a new Plan of Action will resume, with the objective of preparing a new draft of the proposed Plan of Action as soon as the principal issues are resolved.

Question 12: In the testimony of Richard McCormack it is suggested that SPR oil could be sold to U.S. companies in compensation for oil which they diverted to other countries in fulfillment of I.E.A. allocation obligation of the United States.

a. Would the requirement in the SPR drawdown plan for competitive sale of SPR oil not preclude the use of SPR oil for this purpose?

Answer: No. As Mr. McCormack's testimony indicated, there are several ways in which the SPR might assist in meeting U.S. obligations under the IEA. First, SPR drawdown would supplement supply and thus reduce U.S. imports, thereby reducing any allocation obligation that might otherwise be incurred. Second, companies participating in the IEA oil sharing system would be eligible to bid competitively for such SPR sales and thus might divert foreign cargoes to other IEA countries. Third, "directed sales" under the SPR "Drawdown" Plan could be made to U.S. oil companies to replace oil diverted to other countries. If such "directed sales" were made, the price

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for such SPR oil would be set at the average price of SPR oil sold at the contemporaneous competitive sale, or at the most recent competitive sale if no contemporaneous competitive sale is held.

12.b. How would you otherwise propose to accomplish this purpose?

Answer: The Administration is currently reviewing the need for fairsharing. No decisions have been made as to whether fairsharing is needed or how such a program would be implemented.

Question 13: In his testimony John McCormack stated: "The IEA system would operate on the margins of a more or less normally functioning world economy. The NATO system would be activated only at a time when a threat to allied security became so serious as to require subordination of economic "business as usual" to mobilization of allied military forces. Hence, we would expect the IEA system to be deactivated at the point the NATO system was activated. On the other hand, ongoing design of the NATO system is aimed at maintaining maximum flexibility and maximum compatibility with the IEA system, so that we would have the option of melding the two systems together in some way if a particular crisis so warranted."

What is the position of the IEA members on the use of the IEA system to meet NATO obligations?

Answer: The IEA has not taken a position on the use of the IEA Emergency Sharing System to meet NATO "obligations." The two oil sharing programs have different purposes. The purpose of the IEA system is to ensure equity in access to oil supplies. The NATO plan was designed to ensure that defense petroleum requirements are met; if the IEA system were activated and NATO requirements could not be met, the NATO system would likely supersede the IEA system to meet military requirements.

Of course, the nature and impact of a disruption would influence the activation of one system or the other.

Question 14:	In the materials provided for the record, it is indicated that the Department is considering proposals to provide an antitrust defense for voluntary U.S. energy company actions to fulfill United States NATO oil supply commitments and bilateral oil supply agreements. a. What specific types of voluntary actions are envisioned? b. What specific legislative proposals are being considered? c. When can the Committee expect to receive such proposals for consideration?
Answer 14.a.:	Although the Administration's planning in this area has not been completed, experience in NATO exercises over the years, particularly the recent NATO WINTEX-CIMEX exercise, indicates that the type of oil company cooperative activities that may be required to implement the oil supply programs of the NATO Wartime Oil Organization, or obligations under the U.S.-Israeli oil supply agreement, may be similar to the type of U.S. oil company cooperative activities permitted under the "Voluntary Agreement and Plan of Action to

Implement the International Energy Program" (2 CCH Federal Energy Guidelines, para. 15,845), and under previous voluntary agreements such as the 1951 "Voluntary Agreement for Supply of Petroleum to Friendly Foreign Nations," which was entered into in response to the shutdown of petroleum production and refining facilities in Iran. This Voluntary Agreement provided for formation of a Foreign Petroleum Supply Committee for the purpose of finding and channeling petroleum supplies to foreign shortage areas and making recommendations to meet the emergency shortages. The Committee also made surveys, obtained analysis, and maintained current information on foreign petroleum operations. The Plan of Action permitted cooperative action among Committee members in the fields of petroleum production, refining, transportation and distribution.

The 1951 Voluntary Agreement and several subsequent voluntary agreements have been authorized under section 708 of the Defense Production Act of 1950 (DPA), Pub. L. 81-774, 50 U.S.C. App. section 2158. As originally

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enacted, DPA section 708 gave the President broad authority to convey antitrust immunity for persons to carry out voluntary agreements "to help provide for the defense of the United States through the development of preparedness programs and the expansion of productive capacity and supply beyond the levels needed to meet essential civilian demand in the United States." Section 708 was substantially revised in 1975, however, in conjunction with legislative enactment of section 252 of the Energy Policy and Conservation Act (EPCA), Pub. L. 94-163, 42 U.S.C. section 6272, which provides a limited antitrust defense for the actions of U.S. oil companies carrying out voluntary agreements and plans of action required to implement the allocation and information obligations of the U.S. under the Agreement on an International Energy Program (IEP). Among other revisions, the 1975 amendments not only made the antitrust defense unavailable for IEP implementation, but also made it unavailable for voluntary U.S. energy company actions to fulfill the U.S.' NATO oil supply commitments, the

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U.S.-Israeli oil supply agreement, or other such international obligations. In addition, the amendments reduced the antitrust immunity to a defense, available only if a firm acted in "good faith."

14.b.: See the answer to Question 5.b. above.

14.c.: A number of legislative proposals are under consideration within the Executive Branch, but a schedule for the submission of any proposals to Congress has not been established.

Question 15a: Based on current and planned schedules for the storage of oil in the SPR:

How many days of emergency supply now (as of December 31, 1982), and quarterly through fiscal year 1983, exist in the Strategic Petroleum Reserve.

Answer: As of December 31, 1982, the inventory of oil in the Strategic Petroleum Reserve was 293.8 million barrels. At the 1982 import rate (4 million barrels per day net), the inventory on hand at the end of December 1982 (1st quarter FY 1983) would equate to 73 days of 1982 net U.S. petroleum imports, assuming all imports were disrupted, which is highly unlikely.

For FY 1983, the projected days of imports are calculated using the 1982 net import level of 4 million barrels per day and the Strategic Petroleum Reserve Office's planned inventory levels for each quarter. The following table describes the growth of the SPR during FY 1983 in comparison to 1982 net U.S. imports (excluding SPR).

FY 1983

	SPR Inventory	Days of 1982 Imports
1st Quarter (Oct-Dec)	293.8	73
2nd Quarter (Jan-Mar)	313.8	78
3rd Quarter (Apr-Jun)	337.5	84
4th Quarter (Jul-Sep)	358.2	90

Question 15 B: How many days of comparable "stockpiled" crude and product, as distinguished from "working stocks," now exist in each of the IEA member countries?

Answer: The manner in which oil is stored varies among the IEA members. Most governments require their companies to maintain certain inventory levels in order for their country to meet the IEA commitment. Thus, a company's working stocks are combined with the member's "strategic" stocks.

As of January 1, 1983, total IEA oil stocks represented 169 days of 1982 net oil imports. This figure includes both working stocks and strategic stocks. U.S. oil inventories, including SPR, totaled 329 days of 1982 net oil imports.

Some governments have established distinct stockpiling reserves, either wholly government-owned or owned jointly by government and industry. In addition to the United States, Japan, West Germany, Sweden, New Zealand, Denmark and the Netherlands maintain strategic stocks distinct from most working stocks.

We estimate these stocks as follows:

	Strategic Stocks Government	(Days of 1982 Net Oil Imports) Government-Industry*
Japan	16	(Under construction)
Germany	25	60
Netherlands	-	26
New Zealand	33	-
Sweden	NA	-
Denmark	-	NA

* This category includes an undetermined amount of working stocks.

Of total IEA oil inventories outside the United States, we estimate that the level of "minimum" working stocks in each IEA country is between 25-65 days of imports, depending on the country's refining and distribution system; we estimate that the average for IEA countries other than of the U.S. is about 60 days of imports. Stocks drawn below the minimum operating level would create dislocations in that country's supply system.

Question 16: Based upon your projection of U.S. oil imports in the range of 6 to 7 million barrels per day as we approach 1990, on an annual basis, how many days of energy supply would the Strategic Petroleum Reserve provide:

a. under a fill rate of 300,000 barrels per day?

b. under a fill rate of 220,000 barrels per day?

c. under the fill schedule set forth in Department of Energy budget documents?

Answer: The Department's July 1982 update of "Energy Projections to the Year 2000" established a projected range of U.S. net oil imports in 1990 of 5.2 to 6.7 million barrels per day based on a mid-range set of oil price forecasts but employing a range of economic growth rate assumptions. These projections are currently under revision.

Based on these 1982 projections for 1990, the following table presents the cumulative fill projections associated with the sub-questions and the range of equivalent days of 1990 U.S. oil imports.

Cumulative SPR Inventory, MMB, End of Fiscal Year

		1983	1984	1985	1986	1987	1988	1989	1990
a. 300 MBD after FY 1983		358	468	577	687	750	750	750	750
b. 220 MBD		358	439	519	599	679	750	750	750
c. President Budget 1/		358	411	448	484	521	557	594	630
Ratio of SPR Inventory to Projected 1990 U.S. Net Oil Imports (Expressed as Days)									
	1990 Import Level (MMBD)								
a.	5.2	69	90	111	132	144	144	144	144
	6.7	53	70	86	103	112	112	112	112
b.	5.2	69	84	100	115	131	144	144	144
	6.7	53	66	77	89	101	112	112	112
c.	5.2	69	79	86	93	100	107	114	121
	6.7	53	61	67	72	78	83	89	94

1/ Budget projections extend only through FY 1988. For purposes of this table, a 100 MBD rate has been extended through FY 1990. All of this information is subject to revision in the near future based on revised oil price projections and other factors.

Question 16d: Are the assumptions used in performing these analyses consistent with those economic projections of recovery assumed in the Fiscal Year 1984 Presidential budget documents submitted to the Congress. If not, how do the assumptions differ? And how would the above answers differ?

Answer: The Department's July 1982 update of "Energy Projections to the Year 2000," which preceded the President's budget by six months, contained long term projections using a range of U.S. economic growth assumptions. The high range assumed an annual average rate of growth in real Gross National Product (GNP) of 3.5 percent per year during the 1981-1990 period. The low range assumed a 2.3 percent annual average growth in real GNP during this period. A mid-range case assumed 2.9 percent average annual growth. In the analysis presented previously (question 16(a), (b), and (c)), the 1990 import level ranges are related to the assumptions on economic growth used in developing each set of projections.

The President's FY 1984 Budget, which was completed in January 1983, used economic assumptions based on the outlook at the end of 1982. These assumptions included a 4 percent annual growth rate in real GNP during the 1984-1988 period, preceded by growth rates of minus 1.2 percent and 3.1 percent in 1982 and 1983, respectively. Since these two sets of assumptions cover different time periods, they are not directly comparable. However, if the President's

Budget assumptions were extended to 1990, U.S. GNP (1972 dollars) in that year would be $1.97 trillion, very close to the 1982 update mid-range forecast of $1.96 trillion. Thus, it is reasonable to conclude that current Administration's long-range economic forecasts are not incompatible with the broad range of economic growth assumptions on which the 1982 DOE long-range energy forecasts are based. However, other factors directly related to energy trends, including recent oil price developments, may form the basis for revisions to long-range projections of U.S. petroleum use and imports, and the Department is currently in the process of updating its forecasts.

Question 17:	On several issues this Administration has used as a fundamental components of its arguments the critical role played by private inventories--and the avoidance of action that would discourage the maintenance of such inventories at high levels. a. What, if any, segments of the private sector--oil industry, or end user--maintain inventories for use in an emergency?
Answer:	The primary sector of the petroleum industry (refineries, pipelines and large bulk terminals) maintains some inventory for emergency protection against unscheduled events (e.g., delays in supply, unexpected surge in demand). Most end users, such as electric utility companies, keep a supply of fuel in inventory just for emergencies. Many state public utility regulatory commissions require the utilities to maintain a certain number of days of supply of fuel on hand. Certain manufacturing industries that may have large fuel requirements also keep a sizeable inventory on hand. An example is the airplane and aerospace industry where aircraft assembly plants require strict temperature and humidity levels in order to maintain exact tolerances of metals. The aerospace industry maintains extra fuel supplies as a precaution against interruptions.

Question 17.b: Are not companies minimizing their inventories at this time?

Answer: The primary sector of the petroleum industry has been reducing inventory levels in response to lower demand requirements and expected decline in the price of oil. The quantity of oil stocks held in the U.S. and world-wide inventory is still high on a days-of-supply basis, calculated on current consumption. On this basis, U.S. inventories are substantially higher than the levels experienced throughout the 1970's.

17. c. Is there not a tendency to attempt to rebuild inventory at the onset of a disruption?

Answer: This depends on the specific circumstances at the time of the disruption. If inventories are relatively high at the onset, it is less likely that industry will attempt to build stocks to even higher levels. If inventories are low at the onset, it is more likely that stocks will be built up. Past experience supports both types of reactions. There have been incidences in the past, at the onset of a disruption, in which some U.S. companies attempted to build inventories. However, these companies operated in the context of price and allocation controls, which are no longer in effect. How the private sector will react in any given emergency situation can never be predicted with certainty in advance.

17.d. Doesn't this essentially mean that the private sector's inventory behavior is exactly the opposite of what we would wish regarding emergency preparedness?

Answer: No. Price and allocation controls in the U.S., in the past, have hampered the ability of the market to operate freely. Fundamentally, however, there is no basis for taking the position that, in an energy emergency situation, all available supplies of fuel should be made available and consumed as soon as possible. Depending on expectations about the duration and severity of the crisis, wise husbanding of supplies might well be the most prudent course of action. Moreover, reliance on the market will provide proper incentives for industry to maintain adequate stock levels, to develop fuel switching capabilities, and to diversify supplies. Thus, industry will be better prepared at the onset of a disruption, which is the important objective.

17.e. Are you contemplating any moves to break this cycle?

Answer: DOE is analyzing the questions of whether other incentives exist to private industry stockpiling. We are also examining other options for SPR oil use, such as forward sales. But DOE has no intention of substituting its judgment for the collective judgments of the private sector as to how they utilize their own supplies of fuel.

Question 18.a.: This comment suggests that it will be at least another four months before the procedure will be in place [so that] the new SPR Drawdown Plan could be activated. Is that correct?

Answer: No. In the event of an emergency requiring the use of the SPR, DOE could adopt immediately the sales rule, standard contract provisions, and other sales procedures required for the rapid activation of the SPR Drawdown Plan.*/ In the absence of emergency, however, DOE's schedule balances the need to complete the sales system as quickly as possible against the need to develop carefully designed, efficient and effective procedures, taking into account the views of all persons who wish to participate in the rulemaking, for the sale and delivery of SPR oil.

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*/ On March 8, 1983, DOE issued a Notice of Proposed Rulemaking governing price competitive sales of SPR oil (48 Federal Register 11125, March 16, 1983). The proposed rule calls for the development and publication in the Federal Register of Standard Sales Provisions containing contract clauses which the Notice of Sale would make applicable to particular price competitive sales of the SPR oil.

Question 19: a. What SPR drawdown strategies are envisioned for the various types of emergencies envisioned by EEPA?

Answer: As Secretary Hodel stated in his March 7, 1983 testimony,

> [T]he decision on whether or not to utilize so significant a national asset as the SPR must necessarily be a judgmental decision. If the considerations underlying its potential use, and the weight of various factors calling for such use were that clear cut, or that easily quantifiable, and were that well known in advance, we would be operating in a perfect world. As much as we might long for such simplicity, decision-making is just not that simple.
>
> The reports submitted to Congress pursuant to EEPA outlined a framework for decision-making on the use of the SPR. We described factors that would be considered, the ranges of different scenarios that might weigh in favor or against use of the SPR, and some of the management and information systems available to make the SPR drawdown decision. . . .

Question 19 b: What is the procedure to be followed to coordinate SPR drawdown with those of other countries?

Answer: There is no formal procedure to coordinate U.S. SPR drawdown with stock drawdowns of our allies. However, consultation with our allies is a central element of our international energy policy to ensure coordination of actions. For this reason, while we have opposed attempts to commit the IEA to formal stock management schemes in oil disruptions of less than seven percent, we have agreed with other IEA countries to consult during such disruptions. Should the disruption activate the IEA Emergency Sharing System, IEA governments will meet to discuss the situation and harmonize their actions; however governments can meet their IEA commitments by measures of their choosing, including stock drawdown.

At U.S. urging, the IEA has launched a study to examine the manner in which various members would draw their compulsory stocks in a crisis.

Question 20: The SPR Drawdown Plan recently transmitted to the Congress now has the force of law. That Plan may be viewed as these sole authorities governing the drawdown of SPR oil.

a. In your judgment, does the Department have any additional authorities not set forth in the SPR Drawdown Plan governing SPR oil, or are the sole authorities available to the Department those specifically set-forth in the drawdown plan?

Answer: I am advised by the Department of Energy's Office of General Counsel as follows:

The new SPR "Drawdown" (Distribution) Plan, Amendment No. 4 to the SPR Plan, does not limit the legal authorities available to the Department for the conduct of the SPR program.

Section 154(b) of the Energy Policy and Conservation Act (EPCA) required that DOE's predecessor, the Federal Energy Administration, prepare a SPR Plan in compliance with the provisions of section 154, which was to "detail... proposals for designing, constructing and filling" the SPR. Section 154(e)(12) further required that the SPR Plan contain "a Distribution Plan setting forth the method of drawdown and distribution of the Reserve." Under EPCA section 161(b), any drawdown and distribution of the Reserve must be "in accordance with the provisions of" the SPR Distribution Plan. Finally, those authorities which are granted to the Secretary in EPCA section 159(f) for the conduct of the SPR program are provided only "[t]o the extent necessary or appropriate to implement" the SPR Plan, including its Distribution Plan.

Thus, the effect of the SPR Distribution Plan is to require, in the event that a drawdown and distribution of the SPR occurs, that the method of drawdown and distribution be in accordance with the Distribution Plan's provisions; and the section 159(f) authorities may be utilized in this connection only insofar as their use is necessary or appropriate to implement the Distribution Plan. However, Amendment No. 4 does not even purport to set forth the legal authorities available to the Secretary for the conduct of SPR drawdown and distribution. There is no reason that it should do so, for new authorities which the Congress has not seen fit to enact cannot be created merely by referring to them in an SPR Plan Amendment; conversely, a failure to mention some otherwise applicable Congressionally enacted authority has no effect on the availability of that authority in case of an SPR drawdown and distribution in accordance with the provisions of the Distribution Plan.

b. What portions of the SPR Drawdown Plan, if any, are self-executing?

The Congress provided in section 4(c) of the Energy Emergency Preparedness Act, Pub. L. 97-229, that the new "Drawdown" Plan would "take effect on the date it is transmitted to the Congress." Consequently, the Plan is effective now, although the drawdown and distribution methodology set forth therein will require further implementing actions and, of course, no drawdown and distribution of the SPR may be undertaken unless the President makes the finding required by section 161(d) of EPCA.

c. What portions of the SPR Drawdown Plan, if any, require the promulgation of regulations?

Amendment No. 4 provides that the Secretary of Energy may direct the distribution of up to 10 percent of the volume of SPR oil sold in a calendar month in a manner which the Secretary selects at his discretion. Section 161(e) of

EPCA contemplates the promulgation of rules for allocated sales of SPR oil. On this subject the Amendment states:

> Such regulations have been adopted and appear at 10 C.F.R. Part 220. They currently apply only to "any allocation of SPR crude oil, other than distribution by price competition." However, it is the policy of this Administration that the pricing and allocation of energy supplies shall be determined to the maximum extent possible by the workings of the marketplace, and competitive sales which are not subject to these regulations will be the primary method of distributing SPR oil. Non-competitive distribution is provided for in this Amendment only as a limited, extraordinary option. The regulations at 10 C.F.R. Part 220 will be reviewed and any appropriate revisions will be proposed in light of this policy or as may be necessary to conform the regulations to the oil sale methodology provided for in this Amendment with respect to non-price competitive distribution.
>
> These regulations shall remain inapplicable to sales by price competition. The Secretary may also promulgate such other regulations with respect to sales by price competition as he deems appropriate and are consistent with this Amendment. (p. 3)

We presently are unaware of any other regulations needed to implement the method of drawdown and distribution set forth in the SPR Distribution Plan.

> d. When does the Department propose to promulgate regulations to implement the new Drawdown Plan?

On March 16, DOE published a Notice of Proposed Rulemaking of a rule governing price competitive sales of SPR oil in the event of drawdown (see 48 Federal Register 11125). The proposed rule would call for the development, and publication in the Federal Register, of Standard Sales Provisions containing contract clauses which are to be made applicable to price competitive sales. Prior to the May 2 close of the comment period on this proposed rule, DOE expects to publish a draft of the Standard Sales Provisions for public comment.

The existing regulations at 10 C.F.R. Part 220 remain applicable to SPR oil sales other than those conducted through price competition. Following adoption of regulations and Standard Sales Provisions for price competitive sales, DOE plans to review Part 220 and propose any amendments which may be necessary to conform those regulations to the provisions of SPR Plan Amendment No. 4.

CONDITIONS ON SALE OF SPR OIL

Question 21: The SPR Drawdown Plan proposes a standard contract for the sale of SPR oil.

a. Do you intend that the conditions which will be imposed on the sale of SPR oil will be so as to avoid hoarding of, or speculation with, SPR oil, for example, must any purchaser of SPR oil (i) use it for refining and subsequent product sale or (ii) do so within a specified period of time?

Answer: DOE has no present plans to impose contractual requirements on SPR oil buyers that they refine the oil within a specified period of time or sell the resulting product. Once a private party has taken delivery of SPR oil, decisions as to the use of that oil are within the discretion of that purchaser. The marketplace can best determine how and when oil should be refined and the resulting product sold. DOE, of course, will be alert to deliberate attempts to interfere with the SPR program's purposes, and will take such responsive actions as may be appropriate. As noted below in response to Question 21.b., authority exists to take the appropriate actions if they become necessary.

Question 21.b.: Is there any intention to construe the SPR Drawdown Plan to generally prohibit legally any conditions of sale other than transfer of title, price, and point of delivery and specifically to prohibit as a matter of law conditions requiring the use of SPR oil for refining and product sale?

Answer: No. The new "Drawdown" (Distribution) Plan, Amendment No. 4 to the SPR Plan, states that price competitive sales will be open to all interested buyers, and that the universe of buyers will be as large as possible, but it also provides that buyers must sign the Government's sales agreement. As the Plan indicates, a sales agreement may include such provisions as those specifying the duties and rights of the parties, payment procedures, crude oil quality differential pricing, and inspection and acceptance procedures. The Plan also notes that measures such as liquidated damages and

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letters of credit will be utilized to assure the buyers' financial and performance responsibility.

As indicated above, at present DOE has no plans to require the contemporaneous refining of oil drawn down from the SPR. However, SPR Plan Amendment No. 4 clearly recognizes that:

> The primary purpose of the SPR sales and distribution process will be to provide additional supplies of petroleum to domestic energy markets on a timely basis, to substitute for supplies interdicted due to a major fuel supply disruption. The SPR oil distribution process is intended primarily to supplement national petroleum supplies. This Distribution Plan describes the means by which SPR oil will be distributed into the U.S. oil supply system. (p. 4) (Emphasis supplied)

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Thus, the Plan would not "prohibit as a matter of law" contractual provisions designed to require the refining of SPR oil and sale of the resulting product.

It should be recognized, however, that as a practical matter it would be extremely difficult to implement such provisions in a meaningful way, since a buyer of SPR oil could refine that oil, yet refrain from refining an equivalent amount of other oil within its supply system, thereby defeating the purpose of the contractual provision. Nonetheless, this kind of contractual provision can be adopted if it appears necessary during an emergency in order to maintain public confidence in the SPR.

21.c. Is there any assurance that crude oil once obtained would be refined into product and made available to end-users?

Answer: As explained above, DOE has no present plans to impose restrictions upon the buyers of SPR oil to assure that the oil is refined into product and the product is made available to end-users, because we believe that the marketplace can best make the decisions on how and when to use the oil after it has been distributed from the SPR. In some cases, it may be desirable for buyers to restore critically low stocks to be able to react quickly and efficiently to local situations.

Question 21d: What types of crude oil does the Administration plan to make available for auction--a mix representative of refinery needs and capabilities or just one type at any given time?

Answer: There are currently four categories of crude oil with differing quality characteristics which could be sold during a drawdown of the SPR. These categories include a specific generic crude oil (Mexican Maya), two sour crude oil blends, and one sweet crude oil blend. The blend categories are comprised of compatible generic crude oils which have been commingled in SPR storage. These crude oil categories are available at three major U.S. gulf distribution points which access the nation's marine transportation and major interstate pipeline systems, i.e., a) the Seaway Terminal at Freeport, Texas which can supply crude oil via the Seaway Pipeline to Cushing, Oklahoma; b) the Sunoco Terminal at Nederland, Texas which can supply crude oil via the Texoma Pipeline to both Cushing, Oklahoma and intermediate connection points with other interstate pipelines; and c) the DOE's terminal at St. James, Louisiana which can supply crude oil via the Capline Pipeline to Patoka, Illinois.

At the time of a drawdown, the Administration would offer for sale at the appropriate distribution points any category or type of crude oil which, considering refinery capabilities and the profile of the crude oil supply interruption, would best meet the needs of the nation for that particular energy crisis.

Question 21e:	Has the Administration analyzed the capabilities of domestic refineries to handle SPR crude oil, both on a regional and national basis?
Answer:	The Strategic Petroleum Reserve Office has had a continuing program to analyze multiple aspects of the capability of U.S. refineries to handle SPR crude oil. These analysis activities have addressed such topics as the compatibility of SPR technical specifications for crude oil types with standards and practices of the U.S. petroleum industry; the overall mix of types of crude oil in the Reserve inventory; transportation and other logistics capabilities to distribute crude oil from the Reserve sites to the U.S. refinery industry; implications of alternative oil supply disruption scenarios for patterns of U.S. crude oil imports; and levels of dependence of different regions on refined product imports. The Department has also sought advice periodically from the National Petroleum Council (NPC) on issues relative to U.S. oil storage and transportation capabilities which bear on SPR distribution and use, and the NPC has organized a study on this subject to be completed later this year. No one analytic approach can address all aspects of this complex subject, but the Department plans to continue a broad-based review of SPR distribution questions. Patterns of U.S. oil distribution and use have changed since the SPR was created but analyses to date indicate that the SPR can perform as originally intended in supplying crude oil to industry.

Question 21f: Has this kind of information been matched up with the mix of SPR oil which might be made available during a disruption?

Answer: Yes, the mix of SPR crude oil available for sale during a disruption has been analyzed as an integral part of the overall planning process previously described. The oil qualities currently in SPR storage and planned for SPR acquisition have been selected in accordance with the qualities being imported - and which are therefore interruptible - and with the requirements of U.S. refineries using imported crude oil. The specific mix of SPR oil that would be offered for sale in the event of an energy supply disruption would be determined by the nature of the disruption. In considering disruption scenarios in the current DOE crude mix study, the drawdown response is predicated on the magnitude of the disruption, the type of crude oil that has been disrupted, and the impact on both the petroleum logistics system and the refinery sector of the U.S. petroleum industry.

Question 21g: Is there a serious possibility that by superimposing a whole new major subset of buyers, there could be dramatic shifts in the normal logistics and distribution of crude oil and refined products during the stresses of a disruption?

Answer: We do not believe that maximizing the competition for SPR oil will have this effect. However, shifts in the logistics and distribution of crude oil and refined products are expected to occur largely as a result of the supply interruption scenario itself, and not because SPR oil may be purchased by firms which, in the past, may not have been an active part of the U.S. petroleum industry. For example, during drawdown large quantities of crude oil will move out from the SPR through gulf coast marine terminals which presently are engaged primarily in moving oil inland, rather than outward. When an SPR drawdown occurs, the distribution pattern of that crude oil and its refined products will be determined by the existing logistics system capabilities and patterns in end-user demand, which will, for the most part, determine who the purchaser is and the purchaser's actions. No matter who the purchasers are, they all must move the crude oil via the same existing logistics system that is owned and operated by the U.S. petroleum or marine transportation industries. Furthermore, as discussed in response to Questions 21a. and b., it is DOE's intention, in contracting for the sale of SPR oil, to adopt performance responsibility measures which assure the ability of oil buyers to move SPR oil within the logistics structure on a timely basis; this should help reduce the risk that the logistics and distribution structure will be affected adversely by permitting an expanded universe of SPR buyers.

SPR CRUDE OIL QUALITY

Question 22:	In your earlier answer to question 22 regarding whether the Administration intends to sell SPR oil in a commodities futures market you responded:

> "In response to the notice of Inquiry on the EEPA reports, several commentors recommended consideration of pre-crisis futures or options market for SPR oil, DOE is currently examining this concept and intends to solicit public comments early this Spring on the merits of pre-interruption sales of options for SPR oil. No decision has been made as to whether any particular futures or options proposal is within the scope of the current SPR Drawdown Plan, or if any amendment to that Plan would be necessary."

a. What is the precise status of the DOE, or Administration's, consideration of any such concept?

Answer: We have prepared a draft Federal Register Notice of Inquiry to solicit comments on the concept of forward sales of SPR oil. It is currently under review within DOE.

Some initial analytical work has been done on the benefits of pre-crisis sales of rights to SPR oil, and further work on alternate types of forward sales (e.g., options, futures, competitive bid/forward delivery) is currently being done under contract to DOE by the Harvard University Energy and Environmental Policy Center.

22.a. Cont'd We anticipate further evaluation of various SPR forward sales mechanisms to be continued by Harvard, as well as within the DOE.

Question 22.b.: Would you provide for the record an opinion on whether you have the authority generally, or within the scope of the current SPR Drawdown Plan, to establish a pre-crisis futures or options market for SPR oil?

Answer: I am advised by the Department of Energy's Office of General Counsel as follows:

Whether any particular system of advance contracting with respect to SPR oil sales is authorized by law, or within the scope of the Distribution Plan, will depend upon the specific details of that system, and cannot be answered in the abstract. For example, in anticipation of a possible Presidential drawdown finding under section 161(d) of the Energy Policy and Conservation Act, we believe it would be consistent with governing law and with the new Distribution Plan, to proceed to issue a notice of sale of SPR oil, conduct a price competitive

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sale, and award contingent sales contracts, which, however, would not become effective unless and until the President decided to draw down the SPR. At the other extreme of the range of possible pre-drawdown contracting, an SPR oil sales system involving the pre-drawdown sale of "futures" contracts containing definite commitments to sell and deliver SPR oil at a time certain, even though no drawdown was then authorized under section 161, clearly is not permitted by existing law or within the scope of the Distribution Plan. Other possible methods of pre-drawdown SPR contracting would need to be evaluated on the merits of the particular proposals.

22.c. Would you supply for the record any memoranda, studies, or other materials in DOE addressing any futures or option concepts for SPR oil?

Answer: Attached are: (1) the Industry Oil Consumers Group's comments in response to the NOI on the EEPA reports; (2) a Harvard paper, "Drawing Down the Strategic Petroleum Reserve: The Case For Selling Futures Contracts," by Devarajan and Hubbard, June 1982; and (3) "Transportation Energy Contingency Planning: Hedging Transit Fuel Supplies for the Commodity Futures Market," February 8, 1983, by Cabot Consulting Group.

Question 23: The SPR oil, paid for by American taxpayer, has a legitimate role in mitigating the adverse effects of disruption-driven oil price increases.

a. Can this objective be achieved if drawdown is postponed while waiting to see if prices alone will reorder the market?

Answer: As stated in the "Strategic Petroleum Reserve Drawdown and Distribution Report," submitted pursuant to the Energy Emergency Preparedness Act, different supply shortage conditions will call for different responses and suggest a wide variety of SPR use objectives based on national security, economic and international concerns. To maximize the value of the SPR, however, drawdown decisions must be based on estimates of how long the interruptions may last, the likelihood of subsequent interruptions, and whether there will be opportunities to refill the SPR between interruptions. As a general rule, the presumption will be that the most efficient allocation of oil over time will be made by the market.

23. b. Is the Administration's SPR drawdown policy based on injecting SPR oil in sufficient quantities in the refining and distribution system early in a disruption, or holding back until the market system no clearly is longer distributing available supplies effectively?

Answer: As stated in response to Question 23.a., many factors, objectives and circumstances must be taken into account in reaching a decision on how and when to use the SPR. It will depend on the particular situation prevailing at that time. There certainly should be no presumption that the market will not distribute available supplies effectively.

23.c. Has the Administration carefully examined the rural petroleum system as a specific subset, in particular regarding limitations on the ability to shift supplies of crude oil or refined product from elsewhere to offset regional shortage on a timely basis?

Answer: As part of the analysis required for the preparation of the Reports to Congress entitled: "Regional Petroleum Reserves," and "Strategic Alcohol Fuel Reserve" (both submitted December 31, 1982), DOE reviewed the national fuel supply and distribution system. In particular, DOE ascertained that the centrally located Strategic Petroleum Reserve was more than adequate to serve all parts of the United States, either directly or indirectly, through displacement of other oil supplies. While spot shortages of some fuel supplies are always possible for short periods of time, even when oil supplies are ample, fundamentally the energy supply and distribution system in the United States is more than adequate to distribute fuel throughout the nation within a relatively short period of time.

Question 23.d.: Does the current absence of final response procedures and SPR drawdown regulations create a potential major barrier which might preclude timely early SPR drawdown until they are finalized?

Answer: No. As indicated in the answer to Question 18.a., in the event of an emergency requiring the use of the SPR, DOE could adopt immediately the recently proposed SPR sales rule, the standard sales provisions which shortly are due to be published for public comment, and any other regulations or sales procedures required for execution of a decision to draw down and distribute oil from the SPR. Moreover, draft implementation documents have been prepared, which have already been tested successfully in the recently completed WINTEX-CIMEX exercise.

Question 24: In your earlier answer to question 24, regarding the SPR set aside of up to 10 percent of each months sales to alleviate hardships in a disruption, you responded:

> "The purpose of the 10% special hardship provision is to provide a mechanism by which the Secretary could respond to exceptional situations. Since the range of possible situations which could justify resort to the use of this provision is quite broad, we have not attempted to determine what the appropriate decision might be in a particular set of circumstances. However, it is anticipated that the operation of this provision would be somewhat similar to the operation of the exception hardship provision implemented in the past by the FERC with respect to the natural gas curtailment situations--that is, on a case-by-case basis."

a. What procedure is proposed for making this case-by-case determination?

Answer: The general procedure for energy emergencies is described in the "Comprehensive Energy Emergency Response Procedures" report. Any request for directed sales of SPR would follow the emergency response management process within DOE. The Emergency Response Working Group (ERWG) will be responsible for analyzing and recommending action to the Secretary of Energy on each request. In addition, the ERWG could identify others that should be considered.

24. b. In light of the requirement in the SPR Drawdown Plan for competitive sale of SPR, how do you propose to make the SPR oil available to "hardship" cases?

Answer: The SPR Distribution Plan gives the Secretary of Energy discretion to sell at competitive prices up to 10 percent of the volumes drawn down in any calendar month in such manner as he finds necessary in order to meet hardship situations. As indicated above, specific regulations implementing this authority will be considered following adoption of regulations and contractual provisions for price competitive sales.

24. c. Since this limitation is 10 percent of any months sales, do you propose to make any SPR oil available to "hardship" cases without the sale of the corresponding 90 percent?

Answer: The SPR Distribution Plan does not permit the directed sale of SPR oil unless competitive sales also take place during the month.

24. d. Some commentators on the SPR Drawdown Plan complain that (i) the "up to 10 percent" provision is intended as a "no resort" or "no event" set-aside, as opposed to a "last resort" set-aside, and (ii) the DOE vagueness regarding this set-aside is a result of that intention. How would you respond to these complaints?

Answer: That is not correct. The purpose of the 10 percent special hardship provision is to provide a mechanism by which the Secretary could respond to exceptional situations. Since the range of possible situations which could justify resort to the use of this provision is quite broad, we have not attempted to determine what the appropriate decision might be in a particular set of circumstances.

24. e. How does the DOE plan to establish that the "up to 10 percent" provision is, in fact, a serious provision of the SPR Drawdown Plan which would be used when needed?

Answer: In view of the fact that the "up to 10 percent" provision appears in a legally effective document submitted to the Congress by the President of the United States, we are unclear as to what additional steps would be needed to underscore the validity of this provision.

Question 25:	Consumers have benefited from highly efficient agricultural sector. This continued success is critically dependent upon an uninterrupted supply of timely fuel supplies at equitable prices.
	a. Would you agree that American agriculture is critically dependent upon timely supplies of sufficient fuel for its operation? Has the Administration considered the ramifications of a food crisis in this country, if agriculture is unable to obtain critical fuel supplies during a disruption?
Answer:	There are a great number of critical economic sectors in the United States, such as agriculture, that are dependent on timely supplies of fuel. We believe that the free market will be far more efficient in distributing supplies of fuels than any government agency. We are in the process of completing an analysis of the economic impacts of a severe energy supply disruption, including the impacts on the agriculture sector, as required by the Energy Emergency Preparedness Act of 1982. That report will be submitted to Congress by August 3, 1983.

25.b. In the development of the Energy Emergency Response Procedures and the SPR Drawdown Plan what provision, if any, has been made should agriculture be unable to obtain critical fuel supplies so as to avoid a food crisis?

Answer: The market reliance approach supplemented by the SPR in a severe energy emergency will provide substantial protection to all consumers, such as agriculture, and enable them to obtain essential fuel supplies at market prices.

The SPR "Drawdown" (Distribution) Plan provides several provisions to enable consumers to obtain critical fuel supplies. The Plan has eliminated the restriction on who can purchase SPR oil. The expansion of the eligible buyer universe allows farmers, for example, to work together, develop processing agreements and bid on SPR oil.
Also, in a severe energy supply emergency, the Secretary of Energy has the ability to direct the sale of up to 10 percent of SPR oil sold to meet exceptional needs.

25.c. The Administration specifically supports allocation of fuel supplies to the Defense sector, and of crude oil to other nations under the IEA; what is the basis for specifically rejecting this approach as an option for dealing with the needs of other critical economic sectors such as agriculture?

Answer: It is the Administration's intention to rely upon the market supplemented by the SPR to deal with severe supply interruptions in all areas, save only when exceptional circumstances dictate otherwise. The SPR Distribution Plan permits up to 10 percent of the oil drawn down from the SPR to be directed to meet critical requirements, including, for example, defense needs, U.S. company fulfillment of International Energy Program obligations, or agriculture. In this sense, agriculture is treated equally.

Question 26a: In 1982, the composition of SPR oil purchases changed toward high sulphur content crude oils.

Has the Administration evaluated the ramifications of this trend on the flexibility and utility of the SPR oil once needed during an emergency?

Answer: Based on the overall assessment of the requirements of the SPR to replace crude oil imports lost as a result of supply disruptions, the SPR program has established a 35:65 ratio between the low sulphur (sweet) and intermediate to high sulphur (sour) crude oils planned for inventory. While this question is under review, the current plan for the SPR oil acquisition program is proceeding on the basis of maintaining this overall ratio, but in a particular year the ratio may vary from this long-term average due to particular circumstances concerning the storage capacity available or to oil market opportunities. For example, from resumption of SPR fill on 1980 through the end of 1981, over 42 percent of SPR deliveries involved "sweet" crude, whereas during calendar year 1982, less than 20 percent of SPR deliveries involved sweet crude. Overall, by December 31, 1982, over 35 percent of the Reserve inventory was sweet crude. Thus despite year-to-year variations, the overall composition of the inventory is in line with original plans. Should our ongoing assessment of the requirements of the U.S. petroleum industry indicate that changes to this overall crude mix approach are appropriate, the SPR oil acquisition program plan will be adjusted accordingly.

Question 26b: Are the different types and qualities of crude oil being segregated sufficiently during storage so that the "higher sulfur" crude oils do not essentially render the higher quality crudes unusable for most refineries?

Answer: The SPR is segregating the crude oil it purchases into four distinct grades or qualities. These grades are light gravity-low sulfur, intermediate gravity-intermediate sulfur, intermediate gravity-high sulfur, and heavy gravity-high sulfur. SPR systems are designed to maintain this segregation both in storage and during drawdown. By segregating the intermediate to high sulfur crudes from the low sulfur crudes, we are assuring that those refiners who can only process higher quality, low sulfur crudes will have access to the appropriate quality crude oils during a drawdown.

Question 27: Maintaining a minimum fill rate of 300,000 barrels per day after fiscal year 1983 would allow the goal of 500 million barrels to be reached by January 1985. Lowering the post-fiscal 1983 fill rate to 220,000 barrels per day would delay reaching this target until July 1985 (see table). According to the GAO the Administration's proposed and implied fill rates of 145,000 barrels per day in fiscal year 1984 and 100,000 barrels per day thereafter would delay reaching this 500 million barrel goal until March 1987. The GAO thus concludes that:

"The Administration's proposed fill-rates for fiscal years 1984 through 1986 delay by about 2 years the achievement of a 500 million barrel reserve."

Would the Administration's anticipated fill rates for fiscal years 1984 through 1986 result in such a two year delay?

Answer: A 300,000 barrel per day oil fill rate after FY 1983 would result in a 468 million barrel inventory by the end of FY 1984 and a 500 million barrel inventory during FY 1985. Since SPR fill rate requirements are calculated as annual averages by fiscal year, it is not possible to specify when in FY 1985 a 500 million barrel inventory would be achieved. GAO apparently calculates the January 1985 date on the assumption that the 300,000 barrels per day rate would be sustained through at least the first three-and-a half months of the fiscal year. Under the Administration's FY 1984 budget projections, the 500 million barrel inventory level would be achieved during fiscal year 1987, a delay of two fiscal years but not necessarily, for reasons noted above, an exact 24 month delay.

Question 28: If the Administration's proposed fill rate for the next three years is compared with the quantities involved in the Mexican oil purchase plus other contracted volumes, it would appear that the oil entering the SPR during the next three years will be principally "sour" crude.

a. What fraction of SPR additions over the next three years will be "sour" crude?

b. What fraction will be Mexican crude oil?

Answer: The SPR is currently planning for a storage ratio of 35:65 between the low sulfur (sweet) and intermediate to high sulfur (sour) crude oils when fill is completed. During fiscal years 1984 and 1985, scheduled cavern development calls for new storage capacity to become available for approximately 40 percent sweet crude and 60 percent sour crude. In fiscal year 1986, this ratio changes to a 100 percent sour crude, excluding the Big Hill storage site, since development of sweet crude capacity at existing sites will be complete. Since the projected fill rates for these fiscal years are somewhat below capacity, there will be some flexibility in the exact percentage of sweet and sour crudes which can be purchased.

The SPR's long-term agreement with Mexico provides for delivery of 50,000 barrels per day of sour crude oil through August 1986. This will provide for approximately one-third of the fiscal year 1984 crude acquisition requirements and approximately one-half of the fiscal year 1985 and fiscal year 1986 crude oil requirements at the fill rates projected in the fiscal year 1984 budget.

Question 29a: According to the General Accounting Office:

> "The proposed fill rates for fiscal years 1984 through 1986 would not even fill available permanent storage capacity. Under the Administration's plans for fiscal year 1984, the average fill rate would be about 145 MBD. If the Administration maintains its current permanent storage expansion plan, this fill rate would result in nearly 18 million barrels of unused permanent storage capacity by the end of fiscal year 1984. If this additional capacity were filled during the year, the average fill rate could be increased from 145 MBD to about 190 MBD (see table)."

Is this a correct figure? If not, what would be the correct figure?

Answer: This is a correct figure.

Question 29b: Why does the Administration not propose to take delivery of oil purchased in fiscal year 1984 at a higher fill rate rather than delay delivery until fiscal year 1985?

Answer: In general the SPR oil fill rates proposed in the FY 1984 budget derive from a balancing of the need for overall budget constraints with strategic considerations. The specific reason why the oil to be acquired using FY 1984 appropriations is to be delivered in FY 1985 is the need to continue the management practice of prior years of having a significant proportion of annual oil deliveries ordered and funded during the prior fiscal year. This management practice derives from several factors including the need for a predictable and continuous delivery schedule and the desirability of using a mix of long-term and short-term oil purchase contracts for the Reserve. The proposed FY 1984 appropriation to the SPR Petroleum Account would provide for approximately half of the oil planned for delivery during FY 1985. This is consistent with past practices in purchasing and delivering oil.

Question 30a: Projected oil purchases and prices for fiscal years 1985 and 1986 contained in the Administration's fiscal year 1984 budget imply that the Administration plans to fill the SPR at a rate of 100,000 barrels per day in those two fiscal years. This fill rate would result in unused storage capacity of over 26 million barrels and 55 million barrels in fiscal years 1985 and 1986, respectively.

Are these figures correct? If not, what are the correct figures?

Answer: These estimates of unused storage capacity are approximately correct, based on the President's budget request for fiscal year 1984. However, the Department annually reviews its analyses and requirements, and will do so again in conjunction with the development of the fiscal year 1985 budget request.

Question 30b: Why doesn't the Administration propose to fill at a higher fill rate, since excess permanent storage capacity would be available?

Answer: Overall budget considerations have compelled the Administration to propose reductions in a variety of programs, including but not limited to the SPR. Although outlays for SPR petroleum purchases are off-budget, they affect Federal borrowing and economic activity the same as on-budget spending. The budget request for FY 1984 also takes into account the dramatically improved oil market, the reduction in U.S. reliance on imported oil and the improved U.S. capability to deal effectively with disruptions through the buildup of the SPR to over 300 million barrels. The SPR budget request continues at a reasonable rate the growing capability of the SPR to provide economic and strategic security to the nation.

OIL PRICES IN A DISRUPTION

Question 31: The DOE report of this Administration entitled, "Domestic and International Energy Emergency Preparedness" states that in a major oil supply disruption (9.4 million b/d) oil prices would shoot up to a peak of $119 per barrel.

Other responses to the Committee indicate that oil prices could go as high as $192 per barrel.

If this occurred would you advocate simply sitting back and permitting the market to work?

Answer: While the oil price figures quoted by the question represent the results of some econometric models, in point of fact, no one can predict with certainty what the price of crude oil will be in an energy emergency situation, let alone the price of oil products to consumers. It should be recognized, however, that in the absence of artificial demand restraint programs, which in the past badly skewed price and supply in the marketplace, it is essential that the price of oil be permitted to rise to market clearing levels. This is the only way to permit proper supply and demand signals to be conveyed to suppliers and consumers.

31. Cont'd As was fully described in the report submitted to Congress on December 31, 1982, by the President, entitled "Comprehensive Energy Emergency Response Procedures," there are many programs available to be utilized to respond to an energy supply disruption of major proportions. Among the measures which would be considered are: SPR drawdown; international cooperation; surge production; measures to facilitate market adjustments (such as public information, liaison with State and local governments, industry advisory committees and other forms of industry participation); and use of the Defense Production Act and other extraordinary authorities to meet defense petroleum needs.

In addition, we are analyzing alternatives for economic responses to mitigate hardships during an energy supply emergency.

Question 32: Given that the Defense Production Act expires shortly, and will probably be extended, wouldn't it be appropriate to propose an amendment to the DPA to extend it to cover transportation and terminalling operations for the drawdown of the SPR oil? You suggested in the report to the Congress on "Comprehensive Energy Emergency Response Procedures" that the DPA does not now cover this and it would be useful to have that authority (see page 34). Please elaborate as to the need for this amendment to the DPA.

Answer: While reliance on the private sector is the most effective means to ensure prompt distribution of SPR oil, as the Report on "Comprehensive Energy Emergency Response Procedures" indicates, there could be a need in connection with SPR drawdown for authority to assure the timely access of SPR oil to pipelines or docks, in the event that pipeline notice provisions or prorationing practices, terminalling schedules or needs, or other unforseen problems, affect drawdown.

A review is being completed to determine the extent of existing authority in this area and whether any new authority is needed. If it is determined that additional authority is needed, there are several statutes that could be amended to provide such authorities.

DEFENSE PRODUCTION ACT

Question 32: On December 1, at your confirmation you responded to a question for the record from Sen. Jackson regarding what data the EIA now collects on how much oil inventories U.S. oil companies have on the high seas and their destinations. Your response was that the weekly Crude Watch System provides the necessary data.

a. Isn't the Crude Watch program entirely voluntary? Aren't the oil companies polled by telephone for this information? Isn't it true that this data is not certified, in fact it is not even submitted in writing by the companies? How reliable is it?

Answer: The Crude Watch survey is a weekly telephone survey of 30 U.S. refiners to obtain information on their loadings of crude oil destined for the U.S. refiner participation is voluntary, and to date the response has been good. Of the original companies asked to respond when the survey was instituted in 1979, only two have dropped out: Koch, an importer of Canadian crude, dropped out in 1982, and Mobil recently stopped reporting. Several other major companies have made it known that they will continue to report but that they do not want the DOE to make the data publicly available.

32.a cont'd The Crude Watch data are viewed as being preliminary estimates, and are needed as an early warning system. They are not certified by the respondents, nor are resubmissions made for incomplete or erroneous data. Investigations of the accuracy of the data series indicate that the prices are consistent with other, certified data provided to the EIA. For the reasons discussed below, the system yields volumetric estimates that relate only to the specific purchase reported and cannot be used for estimates of stocks or actual U.S./Caribbean imports.

32.b. Moreover, does the Crude Watch program include any price data?

Answer: Crude Watch collects purchase prices for crude oil cargoes reported as destined for U.S. importation. These prices are a mix of prices paid to third parties, intracompany transfer prices paid to subsidiaries of the reporting company, and purchases from producing governments.

32.c. Finally, does the Crude Watch program information tell you in fact what oil is headed for the U.S. or contained in Caribbean inventories for U.S. consumption? Doesn't it only tell you what the intended destination was when the oil was exported? Isn't a significant amount of oil traded after it is on the high seas?

Answer: Currently, the Energy Information Administration does not collect data on the amount of oil that is en route to the U.S., or that is stored in the Caribbean by U.S. companies. The cargoes reported on Crude Watch are expected to be destined for U.S./Caribbean importation at the time the companies report them. Any cargo may be sold, diverted elsewhere, or stored (e.g., in the Caribbean) after it is initially reported as a purchase on the Crude Watch. There is no information on the final disposition (e.g., landed, resold, stored) in the Crude Watch.

ENERGY DISRUPTION

Question 33: Secretary Hodel, you make many references in your statement to the free market. Let's assume that the Ayatollah Khomeini decided to bomb and destroy the Saudi and Kuwait oil installations because these nations support Iraq financially.

a. How long would it be before oil companies went on allocation in the U.S.? (Note that several U.S. companies went on allocation last summer because inventories were low and no supply shortage existed at all.)

Answer: As a general rule, we do not believe it is useful to speculate publicly on the possible effects of various scenarios. While the interruption to which you refer would have an impact, the effect upon U.S. companies would depend upon the severity of the destruction and the length of time anticipated for resumed production.

In addition, the current high level of stocks worldwide would provide increased flexibility. In the most recent quarterly data U.S. private stocks were estimated to represent 105 days of forward consumption, compared with 85 days in 1978. Moreover, the Government has been actively filling the SPR to its present all time high of 310 MMB and worldwide government reserves have increased to approximately 650 MMB.

33.a. cont'd

Therefore, considering surplus production capacity available, favorable inventory levels in most countries and reduced world economic activity, U.S. oil companies would probably consider other options for responding to the situation.

33. b. Even assuming that neither the Federal government, nor state or local governments stepped into the situation, would we have a free market? Wouldn't there be a nation-wide allocation program imposed by the oil companies, based on historic consumption patterns?

Answer: No, not in the sense of a nation-wide, universal, centrally directed program. During a disruption some oil companies and other major distributors of petroleum products in the U.S. might adopt internal "allocation programs" on a company-by-company basis. Programs of this type could be considered supply management programs which would not prevent the proper price signals from reaching the consumer nor will they set end-use priorities. Unlike a centrally directed Federal program of mandatory price and allocation controls which in the past created tremendous dislocation and economic losses, company "allocations" will not prohibit the market to operate in an efficient manner.

Question 34: Isn't the Executive Manpower Reserve program a response to a wartime situation?

Answer: The Defense Production Act of 1950, which authorizes the Executive Reserves, of course was adopted in response to the Korean War. However, the authorities contained in the Defense Production Act are available in peacetime and, in fact, some provisions such as the priority assistance in contracting authority in section 101 are actively utilized at the present time. Moreover, as explained in response to question 7.g. above, recent amendments to the Defense Production Act have made it clear that the authorities provided by the Act are intended to be available to foster energy preparedness and to deal with serious energy supply problems. The Congress has in no way indicated an intention that the authority for the Executive Reserves, or the other authorities contained in the Defense Production Act, should only be used in wartime; indeed, the recent legislative indication has been to the contrary.

Question 35: In a situation that did not involve a threat to the national defense, but did severely restrict the supply of oil to the U.S. and/or her allies, could you legally mobilize the Executive Manpower Reserves?

Answer: Yes. See the answers to Questions 7.g. and 34 above.

Question 36: The documentation available to the Committee indicates that the Executive Manpower Reserves could "help allocate and distribute oil and gas resources from primary inventories and production, through distribution to wholesalers, retailers, and end-users."

How is this consistent with your free-market philosophy?

Answer: Activity in the area of improving the flow of information is one way in which the Executive Reserve program can ensure that the market will operate effectively. Depending on the severity of the situation, the Executive Reservists can be utilized for a wide variety of purposes, in a wide variety of ways. The reliance on the free market and the use of the Reserve programs (or other similar programs involving the private sector in energy emergency preparedness activities) are not contradictory; indeed, they fully complement one another. Having a cadre of experts on various energy matters available to provide advice and assistance to the Federal Government will assist in ensuring the ability of the free market to operate smoothly in an emergency situation.

STATE PREEMPTION

Question 37: You state that "DOE has made it clear to State and local Governments that undue interference with interstate Commerce will be challenged by the Federal Government."

a. When and how did you make this "clear" to the states?

Answer: We have provided information in the form of testimony, speeches, letters, answers to questions to States on the problems in attempting to implement price and allocation controls. In addition, this issue was discussed in detail at the DOE/Center for Strategic and International Studies conference on October 6, 1982, which focused on the State and local Governments' role in energy emergencies. DOE has also participated in numerous Conferences, seminars, and roundtable discussions with State and local Governments.

37. b.	Will your "challenge" be anything other than asking the Courts to strike the State statutes down on Constitutional grounds, which any private litigant can ask the Courts to do as well?
Answer:	Obviously, we would first communicate our concerns to the Governors, State legislatures and other State officials as appropriate. We would be willing to work with States to develop energy emergency response measures that would be consistent and complementary to the Federal approach, and are doing so now. Litigation would be a last resort.

Question 37.c.: Couldn't a Federal preemption statute truly "free" the market of all state and local regulation in this area while under your approach the States could (and would) regulate the market short of "undue interference" of interstate commerce?

Answer: Under the Commerce Clause, Congress could act to prohibit virtually all State and local regulation of the petroleum market, but we think that such action would be far too sweeping. We believe that State and local governments should be free to develop their own approaches (and even to make their own mistakes), so long as they do not impermissibly impede interstate commerce or are not preempted by Federal laws or regulations. See also the answer to Question 6 above.

Question 37.d.: Under your approach could States have State setaside programs?

Could they have price controls that permitted full passthrough of costs but limited profits to what is "reasonable"?

37.e.: Could the States regulate price in any manner at all?

Answer: In general, we think that a State set-aside program would not run afoul of the Commerce

Clause. A State could also attempt to implement a price control program, for example, for petroleum products sold for use within the State. But such a program, insofar as it might result in suppliers withdrawing from the market in that State, might well prove self-defeating. Such programs would likely increase demand (by lowering the price) while at the same time reducing supply (by discouraging suppliers from selling in the State).

Question 38: a. Secretary Hodel, on August 3, 1982, the President signed the Energy Emergency Preparedness Act. Is there any doubt in your mind that this Act is intended by Congress to establish a minimum SPR fill rate that may be higher but in no case is lower than 220,000 b/d?

b. Isn't it also true that the President's FY 1984 budget request for the SPR for funds to be used to fill the SPR in FY 1984 is zero? (All of the funds requested in FY 1984 are for oil deliveries in FY 1985.)

c. Obviously, you can't achieve 220,000 b/d if you don't ask for the money, can you -- unless you are relying on the Congress to provide funds you didn't request.

Answer: a. The Energy Emergency Preparedness Act's amendments to section 160(c) of the Energy Policy and Conservation Act (specifying a minimum SPR fill rate) are applicable "to the extent funds are available" and "subject to the availability of funds." Hence, the SPR fill rate may be lower than 222,000 barrels per day if appropriations are insufficient to pay for a 220,000 barrels per day rate.

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b. Yes.

c. The statement is true, provided one assumes no carry over of funds from the prior fiscal year.

SPR DRAWDOWN PLAN

Question 39: Secretary Hodel, in your SPR Drawdown Plan, Amendment No. 4, submitted Dec. 1, 1982, it appears that foreign oil companies can bid on the SPR oil. The report states:

"The sale would be open to all interested buyers,"...

"It is intended that the universe of eligible buyers will be as large as possible to ensure efficient distribution of SPR oil."

After submission of this report we received memos about existing law that suggest that foreign companies might not be able to export the SPR oil.

What is the policy of the Administration -- will they permit all interested buyers to bid on the SPR oil?

Answer: The policy of this Administration is to ensure the most efficient distribution of SPR oil into the marketplace. One of the ways to enhance and encourage competitive free market sales was to expand the buyer universe. This would permit not just refiners, but also oil importers whose supplies have been disrupted, petrochemical firms in need of feedstock, the agricultural sector and any other responsible offerors to compete for SPR. Such an expansion of the buyer universe would include providing access to SPR oil by

39. cont'd

non-U.S. Caribbean refiners, who normally provide substantial product to the East Coast. This will help to assure that the use of the SPR will accomplish the economic purposes for which it is designed.

Those bidders who may thwart the intended objectives of the SPR, such as unfriendly nations, or financially or operationally incapable buyers, can best be deterred by the maintenance of Presidential authority to control exports, and by inclusion in DOE's sales provisions of measures concerning the performance and payment responsibility of buyers. Through such measures, we should be able to minimize the risks to accomplishment of the SPR's objectives.

However, we are reviewing this issue in response to concern expressed by Congress and others, to determine if any further action is needed. Our answer to Question 21.b. above, indicates some of the steps which could be taken to deal with any problem of this kind which might arise.

Question 40a: Secretary Hodel, don't the Administration's outlay figures in FY 1984 budget for the years FY 1985 - FY 1988 indicate an intention to fill the SPR at only about 100,000 b/d, not 220,000 b/d?

Answer: The Administration's outlay projections in the FY 1984 budget for the years FY 1985 - FY 1988 are based on an assumed 100,000 barrels per day SPR oil fill rate from FY 1985 through FY 1988 and on a specific set of oil price projections. As I have previously indicated, both sets of assumptions are subject to change as we reconsider the long-range Strategic Petroleum Reserve development schedule during the FY 1985 budget formulation process.

Question 40b: Will the Administration seek to repeal the SPR fill rate provisions of EEPA or will you simply ignore the law?

Answer: The Administration will not ignore applicable law, nor does it have plans to seek repeal of the SPR fill rate provisions of the EEPA. We are hopeful the Congress and the Administration can work together and develop an approach that will continue SPR development at a reasonable rate to provide economic and strategic security to the Nation while reducing the present costs of the program in light of overall budget considerations and present and prospective world oil market conditions.

Question 41: The Energy Emergency Preparedness Act requires the President to include in his Comprehensive Energy Emergency Response Procedures Report a description of the sequence of measures which the President would employ. Your report does not appear to contain the sequence of measures you would employ. Is there some reason why such an omission is permitted under EEPA?

Answer: Contrary to the statement in the Question, the "Comprehensive Energy Emergency Response Procedures" Report did contain a description of the sequence of measures which would be used to response to an energy supply disruption. As stated at page 20 of the Report:

> As a general rule, of course, this Administration would seek to respond to energy supply disruptions using the least intrusive measures first, in order to minimize interference with normal marketplace reactions to the emergency.

In the discussion of the three hypothetical scenarios on pages 21 through 27 of the Report, were listed the specific programs that would be likely to be considered for use in the level of severity described by the particular scenario. We believe that this fully complies with the requirements of EEPA.

41. cont'd

As stated in the Comprehensive Energy Emergency Response Procedures Report, however, many factors, objectives, and circumstances must be taken into account in reaching a decision on which of the available responses--and combinations and sequence of responses--to use during a petroleum supply disruption. It is not current Administration policy (nor do we believe it would be appropriate or useful) to announce before a petroleum interruption occurs the specific responses and sequence of responses that may be used. The use of any particular program or procedure would depend upon the specific disruption at hand, and the specific results desired at the time.

Question 42:	The Administration has proposed, as reflected in its FY 1984 budget, to reduce the SPR fill rate from the minimum mandated rate of 220,000 barrels per day to 145,000 barrels per day in fiscal years 1985 - 1988. What analysis has DOE performed that substantiates the basis for this proposed slow down in the SPR program?
Answer:	It is the Administration's view that the current world and domestic energy supply situation is favorable and that the United States is in a strong emergency preparedness position. The world wide energy supply outlook is good. Oil availability has increased; crude oil demand has decreased; oil prices are declining. With the availability of other fuels and excess refining capacity and upgrading of refinery facilities, which allows for a variety of crude type use, the world oil market has become more flexible. These facts, combined with the protection afforded by the substantial increase in SPR inventory and relying on the free market for energy activities, provide for a more optimistic view of our preparedness capabilities. No formal analyses were conducted in this regard, but judgments were derived from analysis of the aforementioned facts. Therefore, the Administration's FY 1984 budget request for SPR was formulated within the context of the need for fiscal restraint and the current U.S. and world energy situations.

Question 43:	In May 1982, the Secretary of Energy submitted a report to the Congress on the appropriate size of the SPR. The report endorsed completion of a 750 million barrel SPR. Has anything caused you to change this conclusion?
Answer:	The Administration is committed to a 750 MMB system. The schedule for achieving 750 MMB is dependent on the timing of Big Hill Phase III development, which will be addressed during the FY 1985 budget formulation process.

Question 44: On March 8, 1982, Secretary Hodel submitted to Senator Jackson a copy of a memorandum to the Secretary from the General Counsel entitled "Minimum Required Rate of Fill of the SPR." How does this memorandum affect the Administration's fill rate schedule for the SPR from fiscal year 1983 to fiscal year 1988.

Answer: The memorandum from the General Counsel of the Department of Energy held that "the minimum required fill rate for the SPR in fiscal year 1983 is the highest practicable rate which can be achieved utilizing all available appropriations, after allowing for a carry-forward into fiscal year 1984 of funds to sustain purchases for the first six months of fiscal year 1984, even if the resulting fiscal year 1983 rate exceeds 220,000 barrels per day."

Recent oil price declines have created the need to make further decisions regarding methods for complying with this interpretation. The Administration is in the process of developing a preliminary formulation of alternative approaches to this issue and intends to consult with the Congress before reaching a definitive conclusion as to the proper decision.

The opinion of the General Counsel was intended to relate to the utilization of existing budget resources between fiscal year 1983 and fiscal year 1984 and does not necessarily bear on subsequent years for which funding has not yet been made available by the Congress.

Question 45.a: To what extent do you believe you now have sufficient legal authority to sell:

(i) option on the purchase of SPR oil

(ii) "futures" on the purchase of SPR oil

(iii) the SPR oil with extended delivery dates (3-6 months)

Answer: We believe that authority exists to contract to sell SPR oil, following a Presidential decision to draw down and distribute the SPR, for delivery to the buyer several months in the future, if policy or programmatic reasons suggest the desirability of doing so.

On the subject of options and "futures", see the answer to question 22.b. above.

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November 5, 1982

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Re: Comments of Industrial Oil Consumers
Group on Strategic Petroleum Reserve
Drawdown Plan and Related Comments,
Docket No. EP-40-82-1

Dear Sir:

Enclosed are an original and six copies of the written comments of the Industrial Oil Consumers Group on the Strategic Petroleum Reserve Drawdown Plan and related issues. The major related issue is the legal authorities available to the President in a shortage. IOCG has attached as Appendix A to these comments our analysis of these authorities. IOCG respectfully requests that this analysis be considered by the government during its preparation of the legal memorandum required by Section 3 of the Energy Emergency Preparedness Act of 1982.

None of the material contained in those comments is confidential, and they may be made part of the public record in this proceeding in their entirety. If you have any questions regarding the attached materials, please feel free to contact the following persons:

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Sincerely yours,

Jan B Vlcek

Jan B. Vlcek
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UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY

Strategic Petroleum Reserve Drawdown Plan	)))	Docket No EP-40-82-1

COMMENTS OF THE INDUSTRIAL OIL CONSUMERS GROUP ON STRATEGIC PETROLEUM RESERVE DRAWDOWN PLAN AND RELATED MATTERS

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November 5, 1982

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UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY

Strategic Petroleum) Docket No. EP-40-82-1
Reserve Drawdown Plan)

COMMENTS OF THE INDUSTRIAL OIL CONSUMERS GROUP ON STRATEGIC PETROLEUM RESERVE DRAWDOWN PLAN AND RELATED MATTERS

Pursuant to the Notice which appeared in the Federal Register on September 29, 1982, 47 Fed. Reg. at 42801, the Industrial Oil Consumers Group ("IOCG") herewith submits its comments on the Strategic Petroleum Reserve Drawdown Plan ("Plan") and related issues.[1] IOCG plans to file additional comments by the dates specified in the September 29 Notice regarding several other issues which are the subject of this proceeding, including the report on Comprehensive Energy Emergency Response Procedures and the Regional Reserve Report which must be filed with Congress by December 31, 1982 pursuant to the Energy Emergency Preparedness Act of 1982 ("EEPA").

The IOCG is a group of industrial consumers of petroleum which have joined together to address the major legislative and regulatory issues confronting industrial oil consumers. Members of the IOCG are: Aluminum Company of America, Armco Inc., Bethlehem Steel Corporation, Cone Mills Company, General Motors Corporation, Kimberly-Clark Corporation, and the United States Steel Corporation. The purposes of the IOCG are outlined in the Group's Statement of Founding Principles, a copy of which is attached as Appendix B.

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[1] Attached as Appendix A is a brief assessment of the President's legal authority to respond to a severe supply interruption, with particular focus on his power under the International Energy Agreement (IEA). Because the IEA likely would be activated along with the SPR in a severe supply interruption, it must be considered as part of any emergency preparedness program. IOCG respectfully requests that these materials be considered by the Departments of Energy and Justice in developing the legal memorandum to Congress required by Section 3 of the EEPA.

I. Importance of the Strategic Petroleum Reserve Drawdown Plan

IOCG commends DOE for its decision to solicit public comments on most of the reports required by the EEPA, despite the short deadlines established by the EEPA. Too often in the past, decisions concerning the use and operation of the SPR have been made with little or no user input apparently on the theory that these issues were of little interest or importance to industrial users. This supposition was and is untrue. Past interruptions have had a dramatic adverse impact on industrial oil users. Because the SPR can be the most constructive and potent tool available to mitigate the impact of possible future interruptions, the use and disposition of the SPR is a matter of major concern to users, including, the members of IOCG. For these reasons, IOCG believes that DOE's decision to open this process to broad public input is a constructive step which will enhance the effectiveness of this vital resource.

Due primarily to the aggressive initiative of the Reagan Administration to filling of the Strategic Petroleum Reserve ("SPR"), the SPR currently contains over 280 million barrels of oil -- over 3 times the volume in storage only two years ago. This is equivalent in size to between 2 and 3 months of current U.S. imports which have been averaging around 4 million barrels. At the current maximum drawdown rate of 1.7 million barrels per day, the SPR could offset a loss of almost half our current imports for between five and six months.

In evaluating U.S. vulnerability to serious oil disruptions, it is important to consider not only the total volume of U.S. oil imports but also the source of these imports. In 1979, oil imports from Arab OPEC, which are often considered the most tenuous source of supply, were three million barrels per day. In 1982, imports from Arab OPEC are averaging less than 1 million barrels per day. At the same time, U.S. sources of oil have become more diversified, and countries such as Mexico and the United Kingdom, have taken on a more important role as oil suppliers. Measured against our Arab OPEC oil imports -- the SPR could provide protection for at least nine months, even assuming that no additional conservation or fuel-switching were to occur.

The importance of a viable SPR is further illustrated by the events of the last decade in which relatively modest shortfalls in world oil supplies have caused a series of crippling economic shocks to the United States and other industrialized nations. Because the United States had chosen to rely on oil price and allocation controls to respond to these disruptions, it has endured long lines of motorists at the pump, physical shortfalls of oil supplies for many industrial and other uses, and substantially greater GNP loss and inflation than would otherwise have occurred. Elimination of these controls has reduced our vulnerability and has put us in the position of being better able to deal with possible future interruption. Most commentators now agree that price controls over oil resulted in a net increase in the costs of oil to American consumers as compared to that which would have been incurred in the absence of these controls. 2/ Indeed, since the termination of price and allocation controls by the Reagan Administration in January of 1981 the world price of oil has declined.

The adverse impact of these price disruptions has not, however, been limited to the United States. Fueled in part by U.S. price controls over domestic oil which encouraged increases in the world price of oil and greater dependence on foreign oil, the 1973 and 1979 political disruptions in the Middle East gravely affected industrial nations. The International Energy Agency recently assessed the impact of these past shortages on industrial nations and concluded that:

> "Within months oil prices escalated sharply, imposing a lasting financial drain on industrialized countries which, in both cases, amounted initially to about 2% of the annual

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2/ See e.g., Hubbard, Fry, Jr., "The Macroeconomic Impacts of Oil Supply Disruptions," E-81-07, pp. 38-39a, 43, 45 (Harvard Energy Security Program, Revised June, 1982).

economic output." World Energy Outlook, p. 21 (IEA, 1982).

IEA noted that the minor reduction in world oil supplies in 1979 alone, led to an estimated loss of real income among the members of the Organization for Economic Co-operation and Development of more than $1 trillion. International Energy Agency, World Energy Outlook, p. 64. With these enormous economic, as well as political and security, stakes at issue, it is imperative that the United States be prepared for possible future oil disruptions through the development of an effective program to utilize our most potent weapon -- the Strategic Petroleum Reserve.

II. Overview of Proposed Drawdown Plan

IOCG believes that any preparedness plan must be, based on the following principles:

(1) Drawdown should be accomplished in a manner which replicates the operation of the free market to the maximum extent possible.

(2) Drawdown should be based on the results of free market sales.

(3) Some SPR oil should be promptly released at the beginning of an interruption so as to mitigate the initial oil price surge which otherwise would occur.

By employing a market-oriented drawdown program, combined with prompt release of some SPR oil at the very outset of the emergency, this process will yield an efficient, prompt, and effective response to an emergency and reduce the temptation to return to inefficient, cumbersome and ineffective government controls.

The pre-interruption oil and initial drawdown process would operate as follows:

(a) Beginning immediately (e.g., January 1983) regular auctions for sale of rights to a limited amount (i.e., no more than 10%) of SPR oil, to be released during an emergency would be held. Any domestic refiner with operating refinery capacity at the time of the auction could bid. The sale of rights to oil obtained at an auction would last for approximately 30-90 days or until the next auction.

(b) All bidders at the auction should have executed agreements with DOE analogous to the current BSA, but with definitive terms so that the details of the transaction are agreed to and understood prior to the declaration of an emergency.

(c) The amount of oil subject to the auction could not exceed the lower of an amount approximately equal to one week of imports or 10% of the SPR.

(d) The President could establish a "minimum bid price" for each auction to assure adequate revenues to the government and encourage private storage. For example, the "minimum bid price" could be the spot market price immediately preceeding the auction, plus a premium of perhaps 5-10 percent.

(e) The President should make the findings required to permit drawdown as soon as the interruption occurs or is detected in order to permit the early drawdown process to accomplish its objective of reducing the initial oil price surge.

(f) Once drawdown begins following the President's declaration of emergency, a successful bidder would be free to sell or exchange his SPR oil with other refiners. This would maximize efficient distribution of the oil and enable companies that did not submit successful bids to obtain SPR or replacement oil.

If the President decides that further drawdowns are necessary following initial SPR drawdown under the mechanism described above, any future drawdown would parallel the sales process described above, except that the President would be free to vary the timing of the sales, the amount of SPR oil to be sold at each auction, and the "minimum price," if any.

As discussed more fully infra, the choice of drawdown strategies can have a significant positive affect on the benefits derived from use of the SPR. In particular, early drawdown of the SPR will temper sudden price hikes. Early use of the SPR can alleviate panic buying, produce more stable short and long-term purchasing decisions by oil traders regarding the availability and price of oil on the world market, and forestall hasty and ill-conceived political responses, such as possible Congressional action to reenact price and allocation controls and demand restraint measures. Thus, use of a modest amount of SPR oil at the outset of an interruption can have a substantially more positive affect on oil prices than drawdown of an equivalent amount of oil later in a shortage.

Consistent with its free market philosophy, IOCG strongly opposes the use of government allocation or price controls to distribute SPR oil. Such mechanisms have inflicted enormous damage when applied within the United States in the past.

Use of these controls even for a limited portion of the Strategic Petroleum Reserve can only serve to blunt the effectiveness of the SPR as a emergency response measure, invite a broader array of controls over other domestic oil, require a larger government bureaucracy, and impair the efficient distribution of oil. Given the potentially significant effect of oil disruptions on the United States economy and security of the past, this nation simply cannot afford another repetition of the futile policies of the past in the guise of protecting favored groups. For those reasons, IOCG opposes any proposal for allocation of the SPR to favor politically vociferous interest groups. 3/

III. Specifics of the Competitive Bid/Early Drawdown Proposal 4/

A. Pre-Interruption Competitive Bids and Initial Drawdown

Beginning in the near future (e.g., January, 1983), DOE would hold regular sales of rights to a limited part of the SPR oil. Initial SPR drawdown would be based on the results of the pre-interruption competitive bid process under which a specified percentage of SPR oil would be immediately available, upon issuance of a Presidential declaration of emergency, to refiners who

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3/ IOCG, of course, recognizes that the Defense Production Act and EPCA give the President supplemental authority over materials, including oil, to meet military requirements which could be used to insure adequate supplies to the military.

4/ Because of the limited time available to DOE to complete the Plan and in an effort to be as helpful as possible, IOCG has attached as Appendix C draft language concerning this proposal which could be inserted by DOE in the Drawdown Plan.

had successfully bid for purchase rights to such oil. The percent could not exceed the lower of an amount approximately equal to one week of pre-interruption imports or 10% of the SPR. Some flexibility, however, should be vested in the President to determine the initial release volumes down to one half of the level noted above and to adjust the volumes sold each month after the initial drawdown period. By allowing the President to vary the amount of oil released during the early stage of the interruption (but within a fixed range to assure that some oil is released), the President/DOE could release some but not all of the amount for which bids were accepted at the sale immediately preceding the declaration of emergency to cover a smaller supply interruption.

1. The mechanics of the pre-emergency sale would be as follows:

a. Beginning in January 1983, sales for the initial drawdown would be held periodically (but not less than quarterly) before the interruption. Any domestic refiner with operating refinery capacity at the time of the sale could bid. The rights to oil obtained at the sale would last for approximately 30-90 days. At end of that time the bids would lapse and a new sale, for the current equivalent of one week of imports or 10% of the SPR, should be held.

Frequent sales will assure that the distribution of SPR oil meets, to the maximum extent practicable, the current requirements of the national distribution system. Without an updating of the bid rights, the flexibility and reliance on the market that is necessary to respond to interruptions would be hampered. Moreover, frequent sales would bring bid prices and actual drawdown closer together in time, yielding additional revenues to the government. Finally, it would insure that, as oil is added to SPR, the percentage of the total available for the initial drawdown would remain equal to the guideline (e.g. not in excess of 10% of the SPR or one week of imports).

b. All bidders at the sale should have executed agreements analogous to the current Basic Sales Agreement with the DOE, but with definitive terms so that the terms of the transaction are agreed to and understood prior to the declaration of an emergency. This will permit physical delivery of SPR oil to be expedited once the emergency is declared. As in OCS sales, a bond should also be required.

c. The President could establish a "minimum bid price" prior to each sale. For example the "minimum bid price" might be the spot market price immediately preceeding the auction, plus a premium of perhaps 5-10 percent. The purpose of any premium before the declaration of an oil emergency would be to provide additional revenues to the government for SPR oil and to deter speculative bidding prior to the shortage. The establishment of a premium would also make it attractive to continue to carry some private reserves.

This as a discretionary element in the plan but there is much to commend it. First, the minimum bid price, with a premium, provides an incentive to maintain or increase private storage since companies cannot assume that SPR oil will be available at less than market prices. Second, it assures that the government will receive some minimum level of revenues for the SPR oil to defray the costs of building the SPR. Third, it may provide invaluable data to DOE and others concerning the state of the world oil market. In addition, once relative stability in oil supply and demand occurs, companies may be unwilling to pay the minimum bid price, which would be a premium above current spot market prices, which will automatically reduce or halt drawdown of the Reserve. Hence, the minimum bid price provides an automatic "detriggering" device which stops drawdown once the market place has adjusted to the new supply condition. The minimum bid price is, of course, a common feature in government's sales, such as OCS leases (Appendix F).

Oil company bids will most likely be based on their perception of world oil price trends and their relative competitive position as learned from prior bids. It is probable that companies with limited access to domestic supplies will tend to bid slightly higher to assure themselves of supplies. The bid price will probably increase as the oil companies perceive increasing risk of supply interruptions.

d. Once the emergency occurs, the price actually paid after the initial drawdown described above, may be - and likely will be - much higher than any "minimum bid price" as bidders adjust their offers in relation to the escalating world market price of oil. However, the "premium" would still perform an important function even at this stage because it provides an objective means of determining when the severe shortage has ended and drawdown should conclude. Purchasers will not normally pay a premium above the world oil price for SPR oil once the emergency abates and spot market prices level off. Thus, the premium would automatically temper and eventually terminate SPR drawdown as the world either adjusts to shortage conditions through reduced consumption or as increased supplies become available.

e. Rights to the oil available at any particular sale would go to the highest bidders. The President could, of course, refuse any or all bids if he concludes that the price is too low, or for other reasons. Once SPR drawdown begins, following the President's declaration of emergency, the successful bidder would be free to sell or exchange the SPR oil to which it had acquired rights with other refiners to maximize efficient distribution of the oil and enable companies that did not submit successful bids to obtain SPR oil. This sale or exchange of SPR rights would, for example, enable refiners in regions distant from the Gulf Coast to secure oil more rapidly and assure that the benefits of this program are felt more quickly and evenly throughout the country. In addition, joint bids for SPR oil should be permitted to facilitate purchases by smaller refiners and wider dispersal of SPR oil.

2. Actual distribution of SPR oil -- as opposed to sale of purchase rights at the sale -- would not occur until the President makes the finding required by Section 161 of EPCA that "a severe energy supply interruption" exists or that the IEA has been triggered. In order for this early drawdown strategy to work, it is imperative that the President make such a finding as soon as the interruption occurs. Delay in declaring an interruption, even though followed by rapid drawdown once the finding is made, will erode the effectiveness of this strategy as a tool of moderating the initial price surge. It should be noted that the Presidential finding need not trigger other emergency powers such as the IEA, and it would only automatically lead to drawdown of a limited part (no more than 10%) of the SPR. Hence, the President could initiate early drawdown without impairing his flexibility to fashion a longer-term response to an interruption.

The distribution mechanism would be as follows:

a. Initial drawdown would be continued at a maximum rate until the specified amount of the available reserve for which successful bids have been made has been released.

b. In the event a successful bidder refuses to take action to accept oil at the price agreed upon, the bidder would be required to pay a penalty and the quantity of crude would be made available to the next highest bidder from the applicable sale.

c. During the initial drawdown period continuing evaluation would be made of the severity of the situation and appropriate arrangements made for additional competitive sales. The amount to be sold at each sale will be set by the President in each solicitation.

B. Drawdown Process After Presidential Declaration of Emergency

If the President decides that further drawdowns are necessary, except as noted in Section C, any future drawdown would parallel the competitive bid process described above, except that the President would be free to vary the timing of the sales, the amount of SPR oil to be sold at each sale, and the "minimum bid price," if any.

A more detailed summary of the mechanics of the sales process is set forth in Appendix D. Appendix E sets forth a scenario illustrating how this process would work in the context of an actual shortage.

C. Defense Requirements

IOCG believes that competitive bids should be relied upon to distribute SPR oil in all interruptions except where a national defense emergency exists or is imminent, as determined by the President. In that event, IOCG would not oppose a limited defense override which would allow the President to depart from the results of the pre-interruption sale in distributing SPR oil at the outset of the emergency. Any deviation, however, should be limited to volumes actually needed to meet defense needs above and beyond the volumes otherwise available to the military. Should the military emergency continue, or arise later, the President has ample authority to allocate oil to the military under Section 161 of EPCA and the Defense Production Act. IOCG wishes to stress, however, that the allocation program should not be used as a basis for distribution of SPR oil for non-defense needs.

IV. Benefits of Proposal

The competitive bid/early drawdown proposal serves three basic purposes:

(1) Supply enhancement. In the event of an oil shortage, this proposal ensures prompt early release of SPR oil into the economy. This assures that oil will be available to refiners at the beginning of the emergency to preserve to the maximum extent possible production of of refined petroleum products.

(2) Price Containment. As discussed more fully below, early release of the SPR will temper the initial price surge and assure a lower price trajectory throughout the interruption.

(3) Public Confidence and Government Restraint. This proposal will enhance public confidence by (1) employing a highly visible system of pre-interruption sales to demonstrate ongoing, working emergency preparedness programs in place and (2) facilitating quick government action in an interruption. Prompt use of the SPR will help to create public confidence once an interruption occurs that an effective emergency program is operating.

Both features will reduce the pressure before and during the shortage for passage of price and allocation controls or enactment of other interventionist programs.

Each of these advantages, together with some additional benefits, is discussed more fully below. The proposal will:

1. Maximize reliance on the free market to distribute SPR oil both to refineries and to others in the distribution chain, including users. Sales from the SPR would be through a competitive bid process (i.e. oil would be sold to the highest bidders) rather than by government allocation. Successful bidders could then sell any excess SPR oil to other refiners. The use of a free market process will enhance economic efficiency and moderate damage to the U.S. economy. By relying on the free market purchasing and distribution system rather than on arbitrary government fiat, oil will also be delivered efficiently to areas of greatest need.

2. Reduce initial and overall oil price increases during a shortage. Automatic distribution of SPR oil immediately upon issuance of the Presidential finding required by Section 161 of the EPCA would help restrain the initial price surge which would otherwise take place while not forcing the President to make a difficult, precipitous decision requiring the deployment of the entire reserve.

During the Iranian oil crisis, oil prices doubled in large part due to panic buying of oil on the spot market. By increasing the amount of oil available at the beginning of a shortage, early drawdown will tend to dampen spot market prices and panic buying. This will not only mitigate the immediate impacts of the shortage but will help assure a smooth transition to the subsequent structural changes in world oil markets which may result from the oil shortage (e.g. longer term reductions in world oil production, higher prices for crude oil).

The potential value of early drawdown of SPR oil as a means of restraining oil price increases has been stressed by many commentators. A study concerning SPR drawdown which was prepared for the Department of Energy and issued last month compared the relative effects of early drawdown of the SPR with delayed drawdown in terms of peak spot market prices for oil, impact on GNP, and various other factors. The report concluded that:

> As expected, larger SPR drawdowns result in lower oil prices and higher GNP. Timing is also important; drawdowns of a given size reduce prices and raise income more if done immediately than if done with a lag. S. Devarajan, G. Hubbard, R. Weiner, "Report to the Department of Energy of the Stockpile Management Project," p. 1-6 (October 1, 1982).

Assuming a 500,000 barrel per day drawdown rate, the Report concludes that early drawdown reduces the peak spot market price of oil by between $2-3 per barrel, whether the disruption is "small" (3 MMB/D loss of OPEC capacity in 1983 lasting for one year) or "large" (6.5 MMB/D loss in OPEC capacity for one year beginning in 1983), as compared with spot market prices if drawdown begins two-quarters after the onset of the disruption. Similarly, early drawdown at the 500,000 barrel per day rate yields an increase in GNP in the fourth and final quarter of the hypothetical disruption of $1 billion (in 1972 dollars) as compared to delayed drawdown. The cumulative GNP benefits of early drawdown for the three years covered by the Report are between $15-20 billion (in 1972 dollars). (Id., 1-5, 3-11, 3-14). 5/ Contract prices, which are responsible for most of the oil transactions in the world oil market during normal periods, continue to be lower under the early drawdown scenario throughout the three-year period considered by the report. (Id., p. 3-13). Thus, early drawdown produces substantial immediate and long-term benefits for the economy.

Based on these results, the authors conclude that "[t]he earlier the SPR authority acts, the more beneficial will be a drawdown of any predetermined size." (Id., p. 3-16). 6/

5/ The only circumstance in which the Report suggests late drawdown provides greater benefits is in a "large" interruption -- high SPR drawdown rate scenario. This scenario assumes a constant high drawdown rate (i.e. 1.5 million barrels per day) in which SPR oil is assumed to be available for only half of the time covered by the shortage (pp. 1-5, 3-14). Under such circumstances, the late drawdown does yield some benefits, primarily because SPR oil is not available throughout the shortage. However, the type of early drawdown supported by IOCG (no more than one week of imports or 10% of the Reserve) would parallel more closely the small drawdown scenario in the Report. Moreover under this proposal the President could still reap the major benefits of early drawdown noted above and extend the drawdown life of the SPR by controlling the volumes sold after initial drawdown.

6/ Other commentators have reached similar conclusions. A recent analysis of contingency planning concluded that:

(Continued on next page)

3. Preserve substantial flexibility to the President. The bulk of the SPR oil would not be sold at the beginning of the shortage but rather could be distributed through further sales, with the pace of the subsequent drawdown dictated by such factors as the severity of the shortage and anticipated duration.

4. Provide a workable and effective response to an oil interruption and, thus, militate against imposition of Federal price and allocation controls. By providing for an immediate sale of a part of the SPR oil, this program assures that an effective drawdown program will be in place once the emergency is declared. This will act as a powerful deterrent to imposition of price and allocations controls which otherwise might be enacted as a "panic" reaction to the shortage.

5. Provide invaluable information to petroleum consumers, producers, and the Government on the likelihood and extent of the interruption. The number of bidders and bid prices

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> Reducing price pressures must be a primary goal of a strategic petroleum reserve. Consequently, a reserve's use should be predictable during the early stages of an interruption, before panic sets in. ... To provide market certainty, the United States should amend the strategic petroleum reserve plan to set forth an automatic schedule of stockpile releases based on different levels of supply interruption. This policy would encourage oil companies and the public to refrain from hoarding and building stocks during an emergency and to assure our allies that new supplies would be available to supplement world shortfalls. ALM, Colglazier, and Kates-Garnick, Energy and Security (ed. Deese and Nye), p. 331 (Harvard Energy and Security Research Project) (Ballinger Publishing Company, 1981).

will provide a useful signal to DOE and other affected persons concerning the state of the world oil market. A sudden increase in pre-interruption bids would serve as an early warning that purchasers expect oil markets to tighten. A moderation of price increases or a drop in the price offered after the interruption commences, on the other hand, may well suggest that oil supplies are increasing relative to demand and that drawdown should be reduced or ended.

6. Provide an effective deterrent to some types of interruptions. A disruption of oil markets instigated by a foreign entity for the purpose of running up spot market prices by inducing panic buying would be less likely to be undertaken and would have less chance of succeeding if it was known that such an action would be countered with rapid release of SPR crude.

V. Implementing Regulations for SPR Drawdown

In 1979, DOE promulgated brief regulations implementing §161(e) of EPCA. These regulations are both out of date and badly deficient in a number respects, and, therefore, should be modified. The regulations do not address several of the principle options set forth in the current distribution plan, including competitive sales and pro-rata apportionment of buy right. These regulations were enacted while the Emergency Petroleum Allocation Act ("EPAA") was still in effect, and have not been significantly modified since the EPAA expired. As a result, they contain significant incongruities and are inconsistent with current Administration's focus on market principles.

The first program -- the Standby Mandatory Crude Oil Allocation Program (10 C.F.R., Part 211, Appendix A, 211-1) -- was established under the EPAA to make crude oil available to refiners so as to assure that each refiner is able to operate its plant at the uniform national utilization rate to be calculated monthly by DOE. This purpose is to be achieved by requiring sales by some refiners, which have relatively more crude oil, to refiners with relatively less crude oil at prices dictated by the regulations. However, DOE's authority to allocate crude oil from one refiner to another expired with the EPAA. Moreover, this complicated system of determining national utilization rates and establishing refinery price and allocation controls is thoroughly at odds with the current Administration's focus on market principles and, in fact, is a product of the regulatory attitudes which prevailed under the EPAA.

The second option discussed in the regulations (10 C.F.R. Part 220) involves a "notice of sale" in which DOE would distribute oil to refiners who would be selected following a Presidential declaration of emergency pursuant to a notice of sale. The notice of sale would determine which refiners received SPR crude oil, the amount to be distributed to each refiner, and the price. The regulations are silent on the principal issues of concern in any distribution plan (i.e., how much oil is to be released, to whom, at what price), leaving resolution to some future "Notice of Sale." Hence, these regulations are essentially no regulations at all, since each of the critical issues to be addressed are deferred until after the emergency has occurred.

The regulations discussed above should be replaced with regulations which are consistent with the market philosophy of the current Administration and the specific proposals adopted in the new distribution plan. Because the prior regulations were adopted through notice and comment rulemaking, rescission or modification must also proceed by rule. See, e.g., State Farm Mutual Automobile Insurance Co. v. Department of Transportation, 680 F.2d 206, 228-30 (D.C. Cir. 1982); 5 U.S.C. §553. Since the current notice of inquiry does not request comments on this issue and is not itself a proposed rulemaking, DOE should, following completion and submission of the distribution plan, initiate a new rulemaking to modify the current regulations to conform them to the dictates of the distribution plan.

VI. Additional Issues.

In the interests of providing the fullest description possible of the operation and justification for its competitive pre-interruption bid/early drawdown proposal, IOCG has identified below some of the additional issues which might be raised about the proposal and provided answers to each.

1. Should the SPR be reserved solely for military requirements until a much larger reserve (e.g., 500 million barrel(s)) is reached?

IOCG recognizes that in times of a national defense emergency, it may be necessary to depart from the competitive bid process as to some SPR oil to assure sufficient supplies of oil to meet defense needs. This possibility is explicitly recognized and factored into the IOCG proposal in the form of the defense "override" under which the President could decline to deliver oil to successful bidders in the last sale before the Declaration of Emergency if (but only if) he determines that the oil is needed to meet defense requirements during a military emergency. In addition, the proposal permits SPR oil to be sold during the interruption to refiners to meet defense needs if a military emergency should develop after the declaration of emergency. Finally, it should be noted that under the proposal, 90% or more of the SPR oil would remain in the Reserve after initial drawdown. Hence, the competitive bid/early drawdown proposal would permit the President to draw down the remainder of the Reserve (90% or more) at whatever time and in whatever amounts he deems appropriate. Although IOCG believes that subsequent drawdown should proceed by competitive bids, this can, of course, be adjusted where necessary to fully meet military needs in times of a national defense emergency.

The fact that some accomodation to military needs _may_ be needed during an interruption does not, however, justify a _blanket_ policy of dedicating SPR oil for defense needs in any and all interruptions, particularly since the Naval Petroleum Reserve, which can provide approximately 160,000 barrels per day is available for defense needs, in an emergency. The past two interruptions, which arose at a time in which no military emergency was present, demonstrate the massive harm to the economy which can occur from even a modest shortfall of oil. The cost of the Iranian oil crisis alone to developed nations in the form of reduced GNP has been estimated to be more than one trillion dollars. International Energy Agency, World Energy Outlook, p. 64. Effective use of the SPR, now that it is nearing 300 million barrels, could significantly temper this harm. As noted earlier, early SPR drawdown can lead to an overall enhancement in GNP of 15-20 billion dollars. As aptly noted by one commentator in a report prepared for DOE, a policy of restricting the SPR solely to meet defense needs "ignores the potentially grave affects that large oil price increases can have on the welfare of the United States." Strategic Petroleum Reserve Drawdown Guidebook, DOE/RA/31029-1 (prepared by the Department of State and E. N. Krapels) p. 5 (October 1982).

In addition, such a policy would be contrary to Congress' directive in establishing the SPR to "reduce[e] the impact of severe energy supply interruptions" and "provide limited protection from the short-term consequences" of a supply interruption. (EPCA, §§2(2), 151). The legislative history of EPCA shows an overriding concern by Congress that the SPR should be used to protect the domestic economy. The Conference Report to EPCA, for instance, declares that the "Act creates a Strategic Petroleum Reserve of up to one billion barrels of crude oil, residual fuel oil and refined petroleum products to insulate the domestic economy." 1975 U.S. Code Congressional and Administrative News, 94th Cong., 1st Sess. Vol. 2, p. 1958, emphasis added. This theme is repeated throughout the legislative history of EPCA. (See e.g. House Report to accompany H.R. 7014, 1975 U.S. Code Congressional and Administrative News, 94th Cong., 1st Sess. Vol. 2, pp. 1774, 1792, 1796).

There is no hint in the language of EPCA or the legislative history that the SPR was to be used only to meet defense needs.[7] Indeed, the language cited above demonstrates that Congress was principally concerned about the adverse consequences of an interruption on the economy. For these reasons, IOCG believes that the Plan should and must establish a mechanism to alleviate economic harm with, however, a suitable means available to meet defense needs if a military emergency does arise. The use of competitive bids and early drawdown of a small part of the SPR, subject to a defense "override", accomodates all these objectives.

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[7] Indeed, Congress considered -- and -- rejected a proposal to establish a separate 300 million barrel reserve for the military in enacting EPCA. S. 594 — drafted by the Administration — would have created separate reserves for the military and civilian population. Hearings Before the Committee on Interior and Insular Affairs, United States Senate, "The Rationale and the Economic Impact of the Energy Proposals Presented by President Ford to the 94th Congress", 94th Cong., 1st Sess. Appendix IV, pp. 699, 708 (1975). The proposal for a separate SPR to meet military needs, however, was not included in either S.622 or H.R. 7014 -- the bills which became EPCA. Instead, the Congress developed a unified reserve designed to protect the domestic economy and to serve national security needs in time of war. (EPCA, §§ 2(2), 3(8), 151, Report of Senate Committee on Interior and Insular Affairs, to accompany S.622, No. 94-260, June 26, 1975, p. 15). A proposal to cede the Reserve on a blanket basis to serve only military needs would be at odds with the congressonal intention that the SPR be available to serve both economic and security needs.

2. Should a small portion (e.g. 10%) of the SPR be set aside for sale at less than market prices to selected refiners or users (e.g. small refiners and agricultural users)?

With the exception of defense requirements during a military emergency, SPR oil should be distributed exclusively through competitive bids without set-asides, price subsidies or similar Federal government controls. First, a set-aside of any size would impair the effectiveness of the competitive bid process. The use of competitive bids replicates to the maximum degree possible the free market and assures the most economically efficient distribution of SPR oil. Sales or allocations at less than market prices will lead to market distortions and inefficiencies. At the same time, competitive sales maximize revenues to the government and compensate it for the substantial investment in the SPR, including purchases and leasing of the salt dome caverns, acquisition of SPR oil and purchase of equipment needed to fill and empty the SPR.

Second, a special set aside for selected refiners or users at below market prices will discourage self-help measures. Self-help measures, such as purchase and filling of private storage capacity, is a costly undertaking which is done only because a company believes that oil will either be unavailable or much more costly during a disruption. Guaranteed access to the government's oil (stored free of charge before the interruption), at a subsidized price, undercuts both incentives and may markedly reduce private storage by those who believe they may be in the favored class.

Finally, a set aside also will lead to other detrimental consequences, including the following:

1. It may be difficult to limit the set aside to a "small portion" of the SPR. Virtually all groups will clamor for some degree of protection if any private group receives preferential treatment.

2. It will be difficult for the Administration to argue to Congress that the marketplace should be permitted to operate free of price and allocation controls if it has inaugerated its own mini-price and allocation program.

3. It will encourage inefficient consumption of oil. The principal reason to reduce the price of SPR oil to some purchasers is to make it available to those who are unable or unwilling to pay the free market price for it. In many cases, this unwillingness is due to the fact that other fuels are available to the purchaser or that conservation measures could be undertaken at a cost which is less than the non-subsidized price of SPR oil. In these cases, the set aside (at a subsidized price) will encourage the use of SPR oil in lieu of less expensive alternate fuels or conservation.

4. Any effort to assure that SPR oil reaches a selected group of users at a predetermined price will require a massive bureaucracy to determine the relative needs of competing applicants for SPR oil, to allocate it to appropriate refiners and to assure that it is received by the designated user. DOE would also presumably be forced to determine whether

the price discount was passed through to the user. Audits of some or all of these refineries would be necessary. Any such effort would impose massive administrative costs and lead to endless debate and litigation.

In conclusion, the goal of the SPR drawdown plan should be to minimize the adverse impact of an interruption on the United States. This can best be accomplished by sale of SPR oil to the highest bidder with each purchaser then able to resell SPR crude oil, as well as other crude oil, to other refiners. This will assure the most efficient distribution of SPR oil. A set aside will only undercut achievement of these objectives. Indeed the mere mention of a set aside for private concerns in the Distribution Plan may inhibit private storage investment by those who expect (or hope) to receive set aside volumes. For these reasons, IOCG strongly opposes a Federal set-aside of SPR oil for non-military requirements.

3. Should competitive bid sales be deferred until after the President issues a declaration of emergency under Section 161 of EPCA?

The principal purposes of pre-interruption competitive bids are to expedite drawdown after the interruption is declared, enable the government to monitor supply conditions and instill greater confidence in our emergency preparedness program. As noted, *supra*, early drawdown of the SPR can significantly mitigate spot market price increases and GNP loss. The economic benefits of early drawdown are still felt as late as three years after the interruption began.

Current DOE plans contemplate at least a thirty-day delay in drawdown if the basic decisions and mechanics of drawdown are delayed until after an emergency is declared. To the extent that mechanical or legal problems arise in qualifying bidders, announcing the sale, and determining winners, further delays could occur. Because such delays could significantly aggravate the harm to the U.S. economy from an interruption, IOCG strongly urges DOE to institute regular (monthly or quarterly) sales so that as many mechanical and legal problems can be uncovered and worked out before the interruption as possible. In order to assure that as many companies bid as possible and that bids are realistic measures of the value of the SPR oil in a shortage, the results of the sale immediately preceding the declaration of emergency should automatically govern initial drawdown, subject only to the defense override.

For the foregoing reasons IOCG respectfully requests that DOE adopt and begin implementation of a competitive bid/early drawdown strategy in the SPR Drawdown Plan as the exclusive means of utilizing the SPR, except in the case of a military emergency.

Respectfully submitted,

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APPENDIX A

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AUTHORITIES AVAILABLE TO THE PRESIDENT UNDER EXISTING LAW TO RESPOND TO SEVERE OIL SUPPLY INTERRUPTIONS

Because of the likelihood that a situation which would trigger use of the SPR may also trigger obligations of the United States under the International Energy Agreement ("Agreement"), and because of the extensive impact that both SPR policy and the effect of the Agreement may well have on how we deal with future petroleum supply disruptions, IOCC believes that a limited discussion of the legal implications of the President's authority in conjunction with the Agreement and its implementing legislation, §251 of EPCA, is a necessary part of its discussion of the SPR. It will also briefly touch on other existing legal authorities available to the President to deal with an oil emergency.

The International Energy Agreement Does Not Confer Authority on the President to Impose Oil Allocation or Similar Programs Domestically In the Absence of Implementing Legislation

The key provisions of the International Energy Agreement for purposes of this discussion are the demand restraint provisions (Agreement, Art. 5), the emergency reserves provisions (Agreement, Art. 2), and the oilsharing provisions (Agreement, Chapters III, IV). To fulfill its obligations under each of these provisions, the United States must undertake certain actions whose impacts will be felt primarily on the domestic level.

The Agreement, however, does not *itself* provide the President with the authority to impose the demand restraint, emergency reserves, and oil-sharing provisions on the United States. In other words, as recently noted by Dr. Ulf Lantzke, Executive Director of the International Energy Agency, the Agreement is not "self-executing." 1/ This fact was, as the following quotation makes clear, recognized by officials of the Federal Energy Administration and the Department of State, who sought legislation from Congress to implement portions of the Agreement:

> Our signature of the Agreement binds us provisionally for the time being. That is, we are obligated to apply it only to the extent possible not inconsistent with legislation until we notify the depositary government that the United States, having complied with its constitutional procedures, consents to be bound. *This legal position is consistent with our view in negotiating the Agreement that implementing legislation would be both necessary and appropriate before the United States could agree to be bound by the full range of commitments embodied in it*. 2/

1/ Comments Delivered Before Conference Sponsored by American Bar Association Section of Natural Resources Law, International Resources Committee, Annapolis, Maryland (October 21, 1982).

2/ Statement of Julius L. Katz, Acting Assistant Secretary of State for Economic and Business Affairs, Before the Senate Committee on Interior and Insular Affairs (November 26, 1974), at 28 (emphasis added). *Legislation on the International Energy Agency: Hearings Before the Subcommittee on International Organizations and on International Resources, Food and Energy of the House Committee on International Relations*, 94th Cong. 1st Sess. (1975) (Statement of Melvin Conant, Assistant Administrator for International Affairs, FEA), at 13; Statement of Thomas O. Enders, Assistant Secretary of State for Economic and Business Affairs, *Hearings on S. 622 Before Senate Committee on Interior and Insular Affairs* (Feb. 13, 1975), at 89.

This fact was also recognized by Congress, which specifically approved only the oil-sharing provisions of the Agreement (*i.e.*, Chapters III and IV of the Agreement) and expressly disclaimed approval of the remaining provisions of the agreement. EPCA, §255, 42 U.S.C. §6275. 3/ Indeed, any attempt by the President to institute these three programs in the United States in the absence of implementing legislation would have been beyond the scope of his constitutional authority over foreign relations, and an unlawful intrusion on Congress' power to legislate domestically and approve treaties. 4/ Thus, any implementing legislation must be read narrowly, to ensure that the Executive Branch has no more authority than Congress intended.

As a consequence of the self-limiting nature of the Agreement, the demand restraint, emergency reserves, and oil-sharing provisions are *not* effective in the United States *except* to the extent provided in separate legislation. In the case of the demand restraint provisions of the Agreement, the President has very circumscribed authority under §202 of EPCA, and Title II of the EECA with respect to domestic demand restraint measures. In the case of the emergency reserves provisions, the

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3/ Section 255 of EPCA states that "this title shall not be construed in any way as advice and consent, ratification, endorsement, or other form of congressional approval of the specific terms of such program [International Energy Program]."

4/ *See* *United States v. Capps*, 204 F.2d 655 (1953), *aff'd on other grounds*, 348 U.S. 296 (1955); *Guerra v. Guajardo*, 1466 F.Supp. 1046, 1055 (S.D. Tex. 1978).

President has authority under Title I, Part B of EPCA to develop, maintain, and utilize the Strategic Petroleum Reserve.

In the case of the oil-sharing provisions of the Agreement, Congress has passed §251 of EPCA, which authorizes the President, by rule, to "require that [the oil industry] take such action as he determines to be necessary for implementation of the obligations of the United States under chapters III and IV of the international energy program insofar as such obligations relate to the international allocation of petroleum products." The scope of the President's authority under §251 is, in IOCG's view, a critical legal issue.

Scope of President's Authority Under §251 of EPCA -- Statement of Position

The language of §251 of EPCA gives the President authority to allocate and set prices for oil which is destined for use abroad by other signatories to the Agreement. Essentially, he can take whatever action is necessary to enable the United States to meet its oil-sharing obligations under the Agreement. Whether §251 of EPCA gives the President any powers to allocate and set prices for oil domestically is a question which has been the subject of recent debate.

IOCG believes that both the language and the legislative history of §251 clearly support their position that the President has no authority under this section to impose a broad-scale domestic allocation and pricing program of the type promulgated pursuant to the EPAA. Equally importantly, IOCG also believes that the language and legislative history of §251 support their position that the President has no authority under this section to impose any other "lesser" form of domestic allocation, including so-called "fair-sharing." By "fair-sharing," IOCG means, in effect, a domestic allocation program applicable to domestic oil companies which would reallocate oil from some companies to those other companies providing oil for international allocation purposes under the Agreement.

Analysis of §251 Authority

All federal agencies which, to our knowledge, have examined the issue of the scope of the President's authority under §251 of EPCA have concluded that this section would not support a comprehensive, EPAA-type, oil allocation and pricing program, and could not be used to address uneven distributional impacts of international oil sharing among regions or end-users. [5/] In this connection, IOCG strongly believes that the Legal Memorandum to be submitted by DOE on the President's existing authorities to respond to an energy emergency should make this position very clear.

The Language of §251 On Its Face Limits The President's Powers to International Oil Allocation

We understand that there is a split of opinion among various agencies as to whether §251 would support a fair-share program, with the Department of State and the Office of Manage-

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[5/] Department of Justice Memorandum, dated June 10, 1981, at 15; Department of Energy Memorandum, dated August 10, 1981, at 2.

ment and Budget contending that fair-sharing authority does not exist, and DOE and the Department of Justice asserting the opposite view. IOCG does not believe §251 provides authority for a fair-sharing program, for the reasons discussed below.

First, Congress went out of its way to emphasize that the President's authority under §251 is limited to international, as opposed to domestic, allocation -- by stating that the actions ordered by the President must be necessary "for implementation of the obligations of the United States under chapters III and IV" of the Agreement "insofar as such obligations relate to the international allocation of petroleum products." Chapter III of the Agreement, titled "Allocation," sets forth, most importantly, the method for determining international allocation rights and obligations and describes aspects of sharing oil when a single participant in the Agreement has experienced a 7% oil shortfall. Chapter IV of the Agreement, titled "Activation", establishes the procedures to be followed for restraining demand, drawing down reserves, and sharing oil in the event that the participants in the Agreement as a group experience a substantial reduction in oil supplies. This chapter also sets forth the procedures to be followed by the International Energy Agency in determining whether an oil shortfall has occurred and whether the Agreement should be activated or deactivated. There is no reference to, or requirement of, fair-sharing either in Chapter III or Chapter IV of the Agreement.

Thus, Chapters III and IV of the Agreement *only impose obligations relating to international, as opposed to domestic, oil allocation*. The clause "insofar as such obligations relate to the international allocation of petroleum products" appears to have been inserted *to add further emphasis* to Congress' intent that the authority contained in §251 *be limited strictly to actions directly related to international oil allocation*. Fair-sharing, which solely concerns *domestic* oil allocation — and, indeed, whose very purpose is to *avoid* mandatory international allocation by encouraging voluntary oil company cooperation -- is at odds with the language of the statute.

Second, §251 authorizes the President to "*require*" the oil industry to take whatever actions he deems "*necessary*" to meet certain of the United States' obligations under the Agreement. A fair-sharing program, no matter how laudatory its objectives and ultimate effects, is not "necessary" to obtain the participation of U.S. oil companies in order to accomplish a rerouting of our oil supplies to other participants in the Agreement. This is because §251 authorizes the President to *order* such participation and rerouting of supplies *regardless* of the impacts on domestic oil companies. 6/

6/ Nor is fair-sharing necessarily needed to encourage oil company participation. Presumably, if an oil company giving up oil for international allocation purposes receives, at the time of sale, the market value for the oil, the company can use the proceeds to purchase other oil (such as SPR oil). Additionally, the Company will be protected against claims for damages resulting from its inability, due to the reallocation of the oil, to meet contract requirements.

Moreover, "fair-sharing" has yet to be adequately and fully described and explained by its proponents at the Department of Justice. We don't really know when it would be made effective, who would be subject to terms, what its terms would be, who would enforce it, and so forth.

IOCC is concerned that the proponents of "fair-sharing" are favoring the concept without any understanding of its practical implications. IOCC has attempted to examine some of these implications and has concluded that "fair-sharing" may be both inadvisable and contrary to this Administration's free-market approach on oil matters. For example, if a "fair-sharing" program is to be run by the Government, as a coercive program designed to force recalcitrant oil companies to give up a percentage of their oil supplies, the program would, of necessity, require the Government, inter alia, to investigate the sources of domestic companies' oil supplies, perform market studies, and assure that means for transporting the oil from company to company were available. The program would quickly become a massive and complicated one -- not unlike the now-defunct Crude Oil Buy/Sell Program. In short, proponents of "fair-sharing" need to give close consideration to the question of whether this in fact is the best means of assuring that companies giving up oil under the Agreement are not disadvantaged -- or whether some other means, such as allowing companies to utilize income from sales of oil to participants in the Agreement to bid for SPR oil to make them more whole -- would be less cumbersome, more equitable, and more in keeping with the Administration's goal of reducing Government's involvement in the oil arena.

The Legislative History of §251 Confirms the View that Domestic Fair-Sharing is Not Authorized

As DOE has itself told the Senate Committee on Energy and Natural Resources in a Memorandum dated August 10, 1981, "it cannot be denied that the legislative history materials generally describe the use of section 251 to mandate international allocation of oil, rather than possible domestic allocation . . ." (*id.*, at 3). The August 10 Memorandum further acknowledges that "the absence of express legislative history supporting the use of section 251 for domestic crude oil allocation if necessary to meet our international obligations suggests that Congress did not intend in section 251 to authorize such allocation." (*Id.*)

Our examination of the legislative history reveals no indication that Congress contemplated the use of §251 for *any form* of domestic allocation, including fair-sharing. Indeed, the legislative history leads to the opposite conclusion. For example, in testimony before the Senate Committee on Interior and Insular Affairs (February 13, 1975) the State Department described the Administration's bill, which ultimately became §251 of EPCA, as follows:

> The bill does state that it is designed in part and proposes to enable the United States to fulfill its responsibilities under the agreement and international energy program; responsibilities which relate largely to emergency planning.

> It contains also a section pertaining to international allocation. This would enable the United States to implement its obligations under the international agreement with regard to the allocation of petroleum to other countries in such amounts and at such prices as are specified.
>
> It is this aspect of the work of the International Energy Agency that this bill seeks to implement, and we think it is essential. 7/

As another example, Senatory Henry M. Jackson (D. Wash.), then Chairman of the Interior Committee which reported out the predecessor of §251, described the provision as "carefully circumscribed authority, which does not now exist in law to carry out the provisions of the agreement on an international energy program." Cong. Rec. S. 3827 (daily ed. March 12, 1975). Fair-sharing and other domestic allocation programs did "exist in law" at that time -- under the EPAA. This statement indicates that Congress viewed the provision as affording the President only international, and not domestic, allocation authority, and only such limited authority as Congress thought necessary to carry out the United States' obligations under the Agreement.

Further evidence exists that Congress viewed §251 as providing authority wholly separate from, and not duplicative of, the EPAA -- and, concomitantly, considered the EPAA to be the principal authority 8/ for domestic oil control. Specifi-

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7/ Statement of Hon. Thomas O. Enders, Assistant Secretary of State for Economic and Business Affairs, at 85.

8/ More limited authority over domestic oil also existed under a handful of other statutes such as the Defense Production Act and the Trade Expansion Act.

cally, the very format of EPCA, which physically separates the provisions dealing with international oil allocation (contained in Title II), from the provisions dealing with domestic oil allocation (contained in Title IV, which was passed to amend and extend the EPAA) indicates that Congress intended §251 to provide no domestic allocation authority.

Conclusions and Recommendations Concerning §251 and Fair-Sharing

Fair-sharing is undeniably a form of domestic oil allocation, because it contemplates mandatory shifting of oil among domestic oil companies by Presidential order to balance oil supplies among such companies. Indeed, this is precisely the reason IOCG believes that extraordinary authority should not be read into §251. Once Government opens the door to domestic allocation in the form of fair-sharing under §251, it may become difficult to draw the line between what is or is not "necessary" to implement the United States' obligations under the IEA in terms of further domestic oil control. IOCG does not want to see §251 used as an indirect means of exercising authority over the domestic flow of oil.

At the very least, IOCG would urge that the Report to Congress on the President's existing energy emergency authorities: (1) explicitly define what is meant by the term "fair-sharing"; (2) clearly explain the distinction between "fair-sharing" and other forms of domestic allocation; (3) describe the criteria which would be used to determine when fair-sharing would be called into play; and (4) describe the "nuts and bolts" of fair-sharing, i.e., how it would actually operate during an oil crisis.

Other Existing Legal Authorities Available to the President to Deal With an Oil Emergency

IOCG does not intend by its foregoing comment to suggest that the President lacks authority effectively to deal with an oil supply disruption. To the contrary, the President has ample, if narrow, authority under several prominent statutes to deal with special emergency problems, for example:

1. the Defense Production Act of 1950, as amended, 50 U.S.C. App. §2061 et seq. (1976 & Supp. IV 1980);
2. the Trade Expansion Act, 19 U.S.C. §1862;
3. the International Emergency Economic Powers Act, 50 U.S.C. §1701 et seq. (Supp. IV 1980);
4. Section 404 of the Powerplant and Industrial Fuel Use Act of 1978; and
5. Title III of the Natural Gas Policy Act of 1978.

Taken together, these statutes, as recognized by the current Administration, provide sufficient authority to handle an energy emergency under a policy where primary reliance is placed on the operation of free market forces.

APPENDIX B

FOUNDING PRINCIPLES OF THE INDUSTRIAL OIL CONSUMERS GROUP

Market forces, unencumbered by governmental allocation, price controls or usage restrictions should be allowed to govern petroleum supply and demand decisions to the greatest extent possible.

Government tax, resource and regulatory policy should encourage development of domestic crude oil resources.

The Federal Government should not impose any industrial end use taxes or mandatory conservation measures on petroleum usage.

The domestic refining industry needs to be capable of providing efficient processing of the widest varieties of available crude oil supplies to insure the availability of petroleum products.

Government energy policy should recognize that petroleum is only one part of the energy equation.

Government and private reserves of crude oil and petroleum products are an important mechanism for dealing with any supply shortage. Private industrial reserves must not be appropriated to resolve scarce supply situations.

In an energy supply emergency, distribution of scarce supplies should be left to the private sector to the maximum extent feasible. Any government allocation plan should insure that petroleum products are equitably available to the private sector.

APPENDIX C

PROPROSED INSERT TO SPR DISTRIBUTIÓN PLAN CONCERNING COMPETITIVE BID/EARLY DRAWDOWN STRATEGY FOR DISTRIBUTION OF SPR OIL DURING AN EMERGENCY

Experience has amply demonstrated that heavy-handed Government intervention in the marketplace, in the form of allocation and price controls, has a sharply negative impact on our Nation's ability to cope with an oil supply interruption. Resort to such controls during the '73 - '74 Arab Oil Embargo and the '79 Iranian Revolution merely aggravated the oil shortages during those periods, while ultimately failing to hold down oil prices, which have more than quadrupled in the last decade. The undeniable failure of allocation and price controls, recognized even by many of those charged with implementing and enforcing them, has led the current Administration to conclude that free market mechanisms must be relied upon to most efficiencly and effectively respond to a petroleum shortage. The free market alone can bring oil supply and demand rapidly into balance, allocating scarce supplies where they can best be utilized.

Consistent with its market-oriented approach, the Administration intends to bring the SPR into play during an oil crisis in a manner which simulates the operation of the marketplace as closely as possible, and which interferes with the marketplace as little as possible. The SPR will be the primary response measure used to offset the effects of an interruption of petroleum supplies.

While the Administration intends to maintain a flexible approach with regard to distribution of the bulk of SPR oil, it has determined that the principal option for use of the SPR will be sale of SPR oil to eligible refiners through pre-interruption sealed competitive bidding so as to permit immediate drawdown of a portion of the SPR at the outset of an announced emergency. Immediate drawdown of a specified amount of SPR oil at the inception of an oil emergency will help reduce peak spot market prices and dampen inflation, and would also aid in the maintenance of the GNP.

The specifics of the early drawdown option would be as follows: In order to resolve mechanical and other problems and permit rapid drawdown of the SPR as soon as the President issues a finding of an oil emergency under Section 161 of EPCA, the first competitive bidding period for SPR oil would begin prior to an oil emergency, preferably as soon as possible. Bidding periods would be held no less than every 90 days thereafter, until the Section 161 finding is made.

The highest bidders for SPR oil will receive "rights" to the oil, which would remain effective for 30-90 days. At the end of the 30-90 day period, a new sale (which would encompass the oil subject to the previous auction) would be held. Pursuant to Section 161 of EPCA, oil would not actually be distributed from the SPR until after the declaration of the emergency.

The President, under this option, may establish a "minimum bid price" prior to each sale. This price might be set at the spot market price for crude oil immediately preceeding the sale, plus a premium. The premium would be established by the President, perhaps in the range of five to ten percent of the spot market price. The purpose of the "minimum bid price" would be to provide incentives for continued private storage, assure that SPR oil is not undervalued, and guarantee the citizens of the United State, who have paid for the oil with their tax dollars, receive an adequate return of and on their investment.

Subsequent to the declaration of an emergency under Section 161, competitive sales would continue on a regular schedule, to be fixed by the President. The President will decide, at the time these later sales are held, what volume of oil from the SPR will be available for purchase and what the "minimum bid price" would be for the oil.

Appendix D

CONTINGENCY PLANNING: STRATEGIC PETROLEUM RESERVE DRAWDOWN PLAN

This Appendix details the mechanics of the proposed Strategic Petroleum Reserve (SPR) Drawdown Plan.

I. Prior to Presidential Declaration of Energy Emergency

  A. All operable refiners interested in obtaining oil from the SPR will:

    1. negotiate a Basic Sales Agreement with DOE defining terms of payment, compliance with necessary government regulations, penalties for nonfulfillment, etc.

    2. provide straightforward confirmation that the administrative and physical procedures needed to promptly accept the oil are in place.

    3. establish their financial ability to purchase the oil by posting a bond analogous to the OCS bonding system.

  B. DOE will administer the monthly auctions as follows:

    1. DOE will issue an invitation to all qualified refiners (see Section I, Paragraph A) to bid on the oil under the terms specified. Bidders will be notified that the bids submitted will be effective for one month, or until the next auction. All bids will describe the price, quantity of oil, other considerations such as

the distribution network (pipeline, tanker, etc.) which will be used in receiving the oil.

3. Review the bids. Within 10 days the DOE will notify the successful bidders and publish a list of all bids in the Federal Register. DOE retains the right to reject any and all bids.

Both successful and unsuccessful bidders will be notified of their relative priority for purchasing oil and of the effective date that the new bids replace those of the previous auction. Joint bids should be allowed to encourage smaller refiners to participate.

II. At the Time of an Emergency

Once the President declares an emergency:

A. DOE will immediately notify the successful bidders that they will be awarded the oil on the terms bid and request delivery instructions;

B. SPR oil will be released at the fastest possible drawdown rates consistent with bidder's needs. Thus, oil companies will receive SPR oil on a schedule consistent with their capabilities, starting immediately (i.e. in hours) after the President declares an emergency.

D. Any oil not claimed (or scheduled for delivery) by a successful bidder within a fixed period (e.g. one month) after the declaration, will be made available to the next highest bidder in the sale (or added to the amount available for a subsequent sale).

E. Successful bidders can elect not to accept the oil. However, those who do not accept the oil will be subject to a penalty in the event of a default. This penalty should be set at a level which will reduce the prospects of speculative bids without, however, rising to a level which would force the companies to accept oil from the reserve if the price increases have moderated.

III. Post-Presidential Declaration Drawdown Period and Action Subsequent to an Emergency

The automatic drawdown process will continue until the established percentage of the SPR has been released (all bids successfully filled). If at any time after the initial automatic drawdown and before the President declares the emergency over adequate supplies of oil become available to bidders at prices below the bid price, they will be permitted to stop receiving oil. In the second and subsequent auctions after the initial automatic drawdown, this will be without penalty, encouraging bidders to stop the drawdown when it is not economically justified and thus avoid excessively depleting the reserve. Once the President declares the energy emergency over, the normal periodic pre-emergency sales procedures begin again.

Appendix E

CONTINGENCY PLANNING: STRATEGIC PETROLEUM RESERVE DRAWDOWN SCENARIO

This Appendix sets forth a hypothetical situation wherein the proposed "Strategic Petroleum Reserve Drawdown Plan" is implemented.

Background

For some months, the world oil market has been stable and the Rotterdam spot market price for Arabian Light is hovering around $32 per barrel.

U.S. oil imports are averaging about 6 million barrels per day.

The SPR has reached a fill level of 400 million barrels and has a maximum drawdown rate of 2 million barrels per day.

Eighty (80) bidders have qualified to bid for SPR oil and have been participating in periodic sales held by the DOE to determine who will get the initial oil withdrawn from the SPR in the event of an emergency.

At a January sales the total SPR oil available for bid was set by the DOE at 40 million barrels. The DOE exercised its discretion over bid prices by establishing a "minimum bid price" of $33.50 ($1.50 above the January spot market price) */ per barrel. Thirty bidders responded and 23 bids were accepted and prioritized as follows:

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*/ All dollars in this paper are constant 1982 $.

Company	Amount of Crude (millions of barrels)	Bid Price ($ per barrel)
A	2.0	34.50
B	2.0	34.45
C	2.0	34.25
D	2.0	34.15
E	2.0	34.00
F	2.0	34.00
G	1.8	34.00
H	1.5	34.00
I	1.0	34.00
J	1.0	34.00
K	1.2	34.00
L	1.5	34.00
M	2.0	34.00
N	1.5	33.90
O	2.0	33.75
P	1.2	33.60
Q	2.0	33.55
R	1.8	33.50
S	2.0	33.50
T	2.0	33.50
U	2.0	33.50
V	1.5	33.50
W	2.0	33.50
	40	

During January a significant "event" occurs in the Middle East and Rotterdam spot market prices began to move upward. In February, oil available for scheduled import decreases in supply and oil prices escalate. By March, Rotterdam spot market prices are ratcheting upward at a rate approaching $2 per barrel per month and during April, the amount of imported oil reaching the U.S. is beginning to decrease. The DOE and the President are monitoring this situation closely.

In the meantime, the January bids have lapsed because no Presidential declaration of a severe supply interruption was issued before the next sale. Sales were held in February, March and April with the bid prices steadily creeping upward.

Scenario

In May the President declares an "energy emergency" setting in action the automatic drawdown of the SPR. Forty million barrels of SPR oil are made available for distribution under the contract terms of the April sale. At that sale with a minimum bid price of $37.50 per barrel 40 bidders responded. Twenty-seven bids were accepted by the DOE and prioritized as follows:

Company	Amount of Crude (millions of barrels)	Bid Price ($ per barrel)
A	2.0	39.00
B	1.0	38.90
C	2.0	38.85
D	1.0	38.84
E	2.0	38.81
F	2.0	38.76
G	1.5	38.76
H	1.8	38.76
I	1.2	38.76
J	1.0	38.76
K	1.0	38.76
L	1.5	38.76
M	1.5	38.76
N	2.0	38.70
O	2.0	38.65
P	1.2	38.55
Q	1.8	38.50
R	1.0	38.50
S	2.0	38.50
T	2.0	38.50
U	1.5	38.50
V	1.0	38.45
W	1.0	38.40
X	1.0	38.35
Y	2.0	38.30
Z	1.0	38.25
A1	1.0	38.25
27	40	

The following is a schedule of SPR oil release and related events during the initial (automatic) drawdown.

Date	Event
May 28	The President issues declaration of an energy emergency under section 3(8) of EPCA.
May 30	The SPR oil starts to flow. Initial flow rate is 500,000 barrels/day.
May 31	The Rotterdam spot market price reaches $39.00 per barrel and is ratcheting upward.
June 10	The SPR oil flow rate has reached 2 million barrels per day and all companies are receiving oil.
June 15	The Rotterdam spot market has reached $39.50 per barrel.

Additional sales using this approach could be held in May and later months until the President found that the emergency was over. The volume to be available at each auction and the minimum bid price would be set by the President based on conditions prevailing at the time of the sale.

APPENDIX F

federal register

Monday
September 13, 1982

Part IV

Department of the Interior

Minerals Management Service

Outer Continental Shelf Diapir Field; Oil and Gas Lease Sale No. 71

[illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE

Outer Continental Shelf
Diapir Field

Oil and Gas Lease Sale No. 71

1. Authority. This notice is published pursuant to the Outer Continental Shelf Lands Act of 1953 (43 U.S.C. 1331-1343), as amended (92 Stat. 629), and the regulations issued thereunder (43 CFR Part 3300). A revision of 43 CFR 3300 appeared in the Federal Register of June 30, 1982 at 47 FR [illegible] and [illegible]. The revisions became effective on July 30, 1982 and will therefore apply to this sale.

2. Filing of Bids. Sealed bids will be received by the Minerals Manager, Alaska Outer Continental Shelf (OCS) Region, [illegible] East [illegible] Avenue, P.O. Box [illegible], Anchorage, Alaska [illegible]. Bids may be delivered, either by mail or in person, to the above address until 4:30 p.m., October 12, 1982; or by personal delivery to the Imperial Ballroom, International [illegible] [illegible], [illegible] E. International Airport Road, Anchorage, Alaska [illegible], between the hours of 8:30 a.m., a.d.s.t., and 9:30 a.m., a.d.s.t., October 13, 1982. Bids received by the Minerals Manager later than the times and dates specified above will be returned unopened to the bidders. Bids may not be modified or withdrawn unless written modification or withdrawal is received by the Minerals Manager prior to 9:30 a.m., a.d.s.t., October 13, 1982. All bids must be submitted and will be considered in accordance with applicable regulations, including 43 CFR Part 3300. The list of restricted joint bidders which applies to this sale was published in 47 FR [illegible], April 8, 1982.

3. Method of Bidding. A separate bid in a sealed envelope, labeled, "Sealed Bid for Oil and Gas Lease (insert number of tract), not to be opened until 10 a.m., a.d.s.t. October 13, 1982," must be submitted for each tract. A suggested form appears in 43 CFR Part 3300, Appendix A. Bidders are advised that tract numbers are assigned solely for administrative purposes and may not be the same as block numbers found on official protraction diagrams. All bids received shall be deemed submitted for a numbered tract. Bidders must submit with each bid one-fifth of the cash bonus in cash or by cashier's check, bank draft, or certified check, payable to the order of the Minerals Management Service. No bid for less than a full tract as described in paragraph [illegible] will be considered. Bidders submitting joint bids must state on the bid form the proportionate interest of each participating bidder, in percent to no more than five decimal places after the decimal point, e.g., [illegible] percent. Other documents may be required of bidders under 43 CFR [illegible]. Partnerships also need to submit a list of signatures authorized to bind the partnership agreement. All documents must be executed in conformance with signatory authorizations on file. Bidders are warned against violation of 18 U.S.C. [illegible], prohibiting unlawful combination or intimidation of bidders.

4. Bidding Systems. All leases awarded for this sale will provide for a yearly rental payment of $[illegible] per hectare or fraction thereof and a minimum royalty of $[illegible] per hectare or fraction thereof. The following systems will be utilized:

a. Bonus Bidding with a 12-1/2 Percent Royalty. Bids on tracts [illegible] must be submitted on a cash bonus basis with a fixed royalty of 12-1/2 percent.

b. Bonus Bidding with a Fixed Sliding Scale Royalty. Bids on tracts [illegible] must be submitted on a cash bonus basis with the percent royalty due in amount or value of production fixed according to the sliding scale formula described below. This formula fixes the percent royalty at a level determined by the value of lease production during each calendar quarter. For purposes of determining the royalty percent due on production during a quarter, the value of production during the quarter will be adjusted for inflation as described below. The determination of the value of the production on which royalty is due will be made pursuant to 30 CFR [illegible].

The fixed sliding scale formula operates in the following way. When the quarterly value of production, adjusted for inflation, is less than or equal to $[illegible] million, a royalty of [illegible] percent in amount or value of production will be due on the unadjusted value or amount of production. When the adjusted quarterly value of production is equal to or greater than $[illegible] million, but less than or equal to $[illegible] million, the royalty percent due on the unadjusted value or amount of production is given by:

$R_j = b \ln (V_j/S)$

where R_j = the percent royalty that is due and payable on the unadjusted amount or value of all production in quarter j

b = [illegible]

ln = natural logarithm

V_j = the value of production in quarter j, adjusted for inflation, in millions of dollars

S = 3.50

When the adjusted quarterly value of production is equal to or greater than $11022.337760 million, a royalty of 63.00000 percent in amount or value of production will be due on the unadjusted quarterly value of production. Thus, in no instance will the quarterly royalty due exceed 63.00000 percent in amount or value of quarterly production.

In determining the quarterly percent royalty due, R_j, the calculation will be carried to five decimal places (for example, 10.36236 percent). This calculation will incorporate the adjusted quarterly value of production, V_j, in millions of dollars, rounded to the sixth digit, i.e., the nearest dollar (for example, 25.636031 millions of dollars).

The form of the sliding scale royalty schedule is illustrated in Figure 1. Note that the effective quarterly royalty rate depends upon the inflation adjusted quarterly value of production. However, this rate is applied to the unadjusted quarterly value of production to determine the royalty payments due.

In adjusting the quarterly value of production for use in calculating the percent royalty due on production during the quarter, the actual value of production will be adjusted to account for the effects of inflation by dividing the actual value of production by the following inflation adjustment factor. The inflation adjustment factor used will be the ratio of the GNP fixed weighted price index for the calendar quarter preceding the quarter of production to the value of that index for the quarter preceding the issuance of the lease. The GNP fixed weighted price index is published monthly in the Survey of Current Business by the Bureau of Economic Analysis, U.S. Department of Commerce. The percent royalty will be due and payable on the actual amount or value of production as determined pursuant to 30 CFR 250.64. The timing of procedures for inflation adjustments and determinations of the royalty due will be specified at a later date. Table 1 provides hypothetical examples of quarterly royalty calculations using the sliding scale formula just described under two different values for the quarterly price index.

c. Bonus Bidding with a 16-2/3 Percent Royalty. Bids on the remaining tracts to be offered at this sale must be submitted on a cash bonus basis with a fixed royalty of 16-2/3 percent.

5. Equal Opportunity. Each bidder must have submitted by 9:30 a.m., e.d.s.t., October 13, 1982, the certification required by 41 CFR 60-1.7(b) and Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, on the Compliance Report Certification Form, Form 1140-8 (June 1982), and the Affirmative Action Representation Form, Form 1140-7 (June 1982). See Item 14, "Information to Lessees."

6. Bid Opening. Bids will be opened on October 13, 1982, beginning at 10 a.m., e.d.s.t., at the second address stated in paragraph 2. The opening of the bids is for the sole purpose of publicly announcing bids received and no bids will be accepted or rejected at that time. If the Department is prohibited for any reason from opening any bid before midnight, October 13, 1982, that bid will be returned unopened to the bidder, as soon thereafter as possible.

Figure 1
Form of the Sliding Royalty Schedule

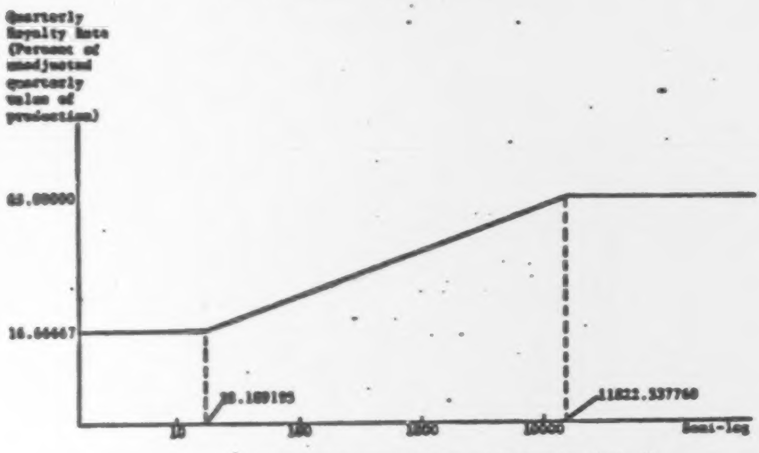

TABLE 1. HYPOTHETICAL QUARTERLY ROYALTY CALCULATIONS

(A) Actual Value of Quarterly Production (Millions of Dollars)	(B) GNP Fixed Weighted Price Index	(C) Inflation Factor[1]	(D) Adjusted Value of Quarterly Production[2] (V1, Millions of $)	(E) Percent Royalty Rate (R1)	(F) Royalty Payment[3] (Millions of Dollars)
10.000000	200.0	4/3	7.500000	16.66667	1.666667
30.000000	200.0	4/3	22.500000	16.66667	5.00000
90.000000	200.0	4/3	67.500000	23.67492	21.30743
270.000000	200.0	4/3	202.500000	32.46382	87.65231
810.000000	200.0	4/3	607.500000	41.25271	334.14695
10.000000	250.0	5/3	6.000000	16.66667	1.666667
30.000000	250.0	5/3	18.000000	16.66667	5.00000
90.000000	250.0	5/3	54.000000	21.89977	19.70879
270.000000	250.0	5/3	162.000000	30.67867	82.83341
810.000000	250.0	5/3	486.000000	39.46757	319.68732

[1] Column (B) divided by 150.0 (assumed value of GNP fixed weighted price index at time leases are issued).

[2] Column (A) divided by Inflation Factor.

[3] Column (A) times Column (E) divided by 100. All values are rounded for display purposes only.

7. Deposit of Payment. Any cash, cashier's checks, certified checks or bank drafts submitted with a bid may be deposited in a suspense account in the U.S. Treasury during the period the bids are being considered. Such a deposit does not constitute and shall not be construed as acceptance of any bid on behalf of the United States.

8. Withdrawal of Tracts. The United States reserves the right to withdraw any tract from this sale prior to issuance of a written acceptance of a bid for that tract.

9. Acceptance or Rejection of Bids. The United States reserves the right to reject any and all bids for any tract. In any case, no bid for any tract will be accepted and no lease for any tract will be awarded to any bidder unless:

a. The bidder has complied with all requirements of this notice and applicable regulations;

b. The bid is the highest valid cash bonus bid; and

c. The amount of the bid has been determined to be adequate by the Secretary of the Interior.

No bid will be considered for acceptance unless it offers a cash bonus in the amount of [illegible] or more per hectare or fraction thereof.

10. Successful Bidders. Each person who has submitted a bid accepted by the Secretary of the Interior will be required to execute copies of the lease specified below, pay the balance of the cash bonus bid together with the first year's rental and satisfy the bonding requirements of 43 CFR Subpart 3300 within the time provided in 43 CFR Subpart 3316.3. A modification of payment procedures for successful bidders appeared in the latest revision of 43 CFR 3300 (see paragraph 1, above). These changes do not apply to the submission of the one-fifth bonus with bids, described in paragraph 3, above.

11. Official Protraction Diagrams. Tracts offered for lease may be located on the following official protraction diagrams which are available from the Minerals Manager, Alaska Outer Continental Shelf Region, at the first address stated in paragraph 2, at a cost of 50 cents

a. Outer Continental Shelf Official Protraction Diagram [illegible] 3-2, [illegible] (approved June 3, 1975).

b. Outer Continental Shelf Official Protraction Diagram [illegible] 3-3, (approved May 5, 1976).

c. Outer Continental Shelf Official Protraction Diagram [illegible] 3-4, [illegible] (approved June 3, 1976).

d. Outer Continental Shelf Official Protraction Diagram [illegible] 3-4, [illegible] Bay (approved May 15, 1981).

e. Outer Continental Shelf Official Protraction Diagram [illegible] 4-3, [illegible] Point (approved February 23, 1982).

f. Outer Continental Shelf Official Protraction Diagram [illegible] 4-4, [illegible] Island (approved April 29, 1975).

Copies of individual Supplemental Official Block Diagrams for tracts containing federal and/or disputed acreage are available from the Minerals Manager at the first address stated in paragraph 2.

12. Tract Descriptions. Note: There may be gaps in the numbers of the tracts listed. Some of the blocks identified in the final environmental impact statement may not be included in this notice. The tracts offered for bid are as follows:

[illegible] and Section 1508.5] that implement the National Environmental [illegible]y Act (NEPA), announces the [illegible]ability of NEPA-related [illegible]onmental assessments (EAs) and [illegible]ndings of no significant impact ([illegible]NSIs) prepared by the MMS for the [illegible]wing oil and gas pre-lease and [illegible]ration activities proposed on the Alaska OCS. This listing includes all proposals for which environmental [illegible]ments were prepared by the Alaska [illegible] Region in the 3-month period preceding this notice.

[illegible]vity/Operator

[illegible]ploration Drilling Program for the [illegible]astern Gulf of Alaska; ARCO Alaska Inc., as operator.

[illegible]ation

[illegible]xact locations for the drill sites will be designated in the applications for [illegible]mit to Drill. The areas involved are in UTM Zone 7.

[illegible]rimary sites:

Protraction Diagram No. 7-8

[illegible]ck 932 SE¼, Lease OCS Y-[illegible]
[illegible]ck 1022 NW¼, Lease OCS Y-[illegible]

Protraction Diagram No. 7-4

[illegible]ck 22 NW¼, Lease OCS Y-[illegible]
Secondary sites:

Protraction Diagram No. 7-8

[illegible]ck 945 SE¼, Lease OCS Y-[illegible]
[illegible]ck 987 SE¼, Lease OCS Y-[illegible]
[illegible]lock 930 NE¼, Lease OCS Y-[illegible]
Block 978 NW¼, Lease OCS Y-[illegible]
[illegible]lock 978 SW¼, Lease OCS Y-[illegible]
[illegible]lock 1022 NW¼, Lease OCS Y-[illegible]
Block 1028 SE¼, Lease OCS Y-[illegible]
Block 1033 SE¼, Lease OCS Y-[illegible]

[illegible]rotraction Diagram No. 7-6

Block 22 SE¼, Lease OCS Y-[illegible]

[illegible] Date

August 2, 1982

Persons interested in reviewing environmental documents for the proposals listed above or obtaining information about EAs and FONSIs prepared for activities on the Alaska OCS are encouraged to contact the below listed MMS office in the Alaska OCS Region.

FOR FURTHER INFORMATION CONTACT: Minerals Management Service, Alaska Region, Deputy Mineral Manager, Offshore Field Operations, [illegible] A Street, Anchorage, Alaska [illegible]. Phone: ([illegible]) [illegible].

SUPPLEMENTARY INFORMATION: The MMS prepare EA and FONSI proposals which relate to exploration for oil and gas resources on the Alaska OCS. The EAs examine the potential environmental effects of activities described in the proposals and present MMS conclusions regarding the significance of those effects. EAs are used as a basis for determining whether or not approval of the proposals constitutes major Federal actions that significantly affect the quality of the human environment in the sense of NEPA Section 102(2)(C). A FONSI is prepared in those instances where the MMS finds that approval will not result in significant effects on the quality of the human environment. The FONSI briefly presents the basis for that finding and includes a summary or copy of the EA.

This notice constitutes the public notice of availability of environmental documents required under the NEPA regulations.

Esther C. Wunnicke,
Minerals Manager, Alaska OCS Region, Minerals Management Service.

[FR Doc. [illegible] Filed [illegible]; [illegible]]
BILLING CODE [illegible]

Oil and Gas and Sulphur, Operations in the Outer Continental Shelf

AGENCY: Minerals Management Service, Interior.

ACTION: Notice of the receipt of a proposed development and production plan.

SUMMARY: Notice is hereby given that Gulf Oil Exploration and Production Company has submitted a Development and Production Plan describing the activities it proposes to conduct on Lease OCS-G [illegible], Block [illegible], West Cameron Area, offshore Louisiana.

The purpose of this Notice is to inform the public, pursuant to Section 25 of the OCS Lands Act Amendments of 1978, that the Minerals Management Service is considering approval of the Plan and that it is available for public review at the Office of the Minerals Manager, Gulf of Mexico OCS Region, Minerals Management Service, [illegible] North Causeway Blvd., Room 147, Metairie, Louisiana 70002.

FOR FURTHER INFORMATION CONTACT: Minerals Management Service, Public Records, Room 147, open weekdays 9 a.m. to 3:30 p.m., [illegible] North Causeway Blvd., Metairie, Louisiana 70002, Phone ([illegible]) [illegible], Ext. [illegible].

SUPPLEMENTARY INFORMATION: Revised rules governing practices and procedures under which the Minerals Management Service makes information contained in Development and Production Plans available to affected States, executives of affected local governments, and other interested parties became effective December 13, 1979, (44 FR 53685). Those practices and procedures are set out in a revised § 250.34 of Title 30 of the Code of Federal Regulations.

Dated: October 12, 1982.

John L. Rankin,
Acting Minerals Manager, Gulf of Mexico OCS Region.

[FR Doc. [illegible] Filed [illegible]; [illegible]]
BILLING CODE [illegible]

Developing a Methodology for the Analysis of Bids on Leases Offered Under the Prototype Oil Shale Program

The Minerals Management Service (MMS) and the Bureau of Land Management (BLM) are developing a methodology for analysis of bids on additional leases which may be offered under the Prototype Oil Shale Program. Our initial thoughts are expressed below. Your comments and suggestions should be sent to Erick Kaarlela, Minerals Management Service, Chief, Branch of Mineral Transactions, Onshore Resource Evaluation Division, Mail Stop [illegible], Reston, Virginia 22091, by November 22, 1982. The final methodology will be published concurrently with the notice of lease sale which is scheduled in early 1983.

The goals of the Prototype Oil Shale Program are and continue to be:

1. To provide a new source of energy to the Nation by stimulating the development of commercial oil shale technology by private industry.

2. To ensure the environmental integrity of the affected areas and at the same time develop a full range of environmental safeguards and restoration techniques that will be incorporated into the planning of a mature oil shale industry, should one develop;

3. To permit an equitable return to all parties in the development of this public resource; and

4. To develop management expertise in the leasing and supervision of oil shale development in order to provide the basis for future administrative procedures.

Consistent with the above goals, the Department is considering offering for lease up to two tracts in the State of Colorado for development and production of oil shale and associated minerals (nahcolite and dawsonite). Our methodology is outline below.

In order to ensure that potential bidders have the financial ability and good faith to develop the tracts per the lease requirements, the Department intends to establish a minimum bid for entry. This minimum bid is not to be considered as representing an equitable return, nor the amount for which the tracts may actually be leased, as that will be determined in the postsale analysis.

Currently, minimum bid for entry in the range of a $1,000 per acre is being considered as achieving the above concerns. This was determined in consideration of initial capital expenditures, expectations of successful operations, and the amount of the recoverable resources.

The MMS and BLM seek comments on the purposes for setting a minimum bid for entry, the range of that minimum bid, and what criteria should be considered.

A postsale analysis will be performed to determine if the high bid received at or above the minimum bid represents an equitable return to all parties. The criteria used for this analysis may include one or more of the following:

1. A measure of competitiveness at the sale, including number and range of bids at or above the minimum bid for entry on all tracts.

2. An analysis of recent transactions or sales of other properties or leaseholds, adjusted for differences such as timing of sales, resource differences, physical characteristics, etc.

3. A cash flow analysis based on assumed development costs and marketing conditions for the tract.

4. An analysis of the timing and extent of oil shale and associated mineral development in consideration of technological and economic factors.

5. National economic and technological benefits associated with the development of oil shale and associated minerals.

6. Return to the State and localities through the Federal Land Policy and Management Act.

7. Sufficiency of the bid to provide incentives to development, particularly through the bonus offset provisions of the leases.

8. Possible losses in revenues from the lease if issuance is delayed at this time.

9. Other important factors or considerations submitted in response to this notice.

Additionally, views are sought on possible procedures to determining the acceptable bidder in the event of tie bids. Comments are requested on the suitability of above criteria and as to how they should be applied.

Dated: October 7, 1982.

Eddie R. Wyatt,

Acting Associate Director for Onshore Minerals Operations.

[FR Doc. [illegible] Filed [illegible]]

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Environmental Documents Prepared for Proposed Oil and Gas Operations on the Atlantic Outer Continental Shelf (OCS)

ACTION: Notice of availability of environmental documents prepared for OCS mineral exploration proposals on the Atlantic OCS.

SUMMARY: The Minerals Management Service (MMS) in accordance with Federal regulations (40 CFR 1501.4 and 1506.6) that implement the National Environmental Policy Act (NEPA), announces the availability of NEPA-related environmental assessments (EA's) and Findings of No Significant Impact (FONSI's) prepared by the MMS for the following oil and gas exploration activities proposed on the Atlantic OCS. This listing includes all proposals for lease operations for which environmental documents were prepared by the Atlantic OCS Region in the 3-month period preceding this Notice.

Operator/Activity—Location—FONSI Date

Tenneco/Exploration Plan—OCS Blocks [illegible], 315 and 359 (112 miles ESE, Nantucket Island, MA, North Atlantic)—August 12, 1982.

Persons interested in reviewing environmental documents for the proposals listed above or obtaining information about EA's and FONSI's prepared for activities on the Atlantic OCS are encouraged to contact the appropriate offices in the Atlantic OCS Region.

FOR FURTHER INFORMATION CONTACT:

Deputy Minerals Manager, Offshore Field Operations, Atlantic OCS Region, Minerals Management Service, Tyson's Beltway Office Centre, Suite 601, 1951 Kidwell Drive, Vienna, Virginia 22180, (703) [illegible], FTS-8-[illegible]

District Supervisor, North Atlantic District, Atlantic OCS Region, Minerals Management Service, Mary Dunn Road, Barnstable Municipal Airport/East Ramp, Hyannis, Massachusetts 02601, (617) 771-[illegible]

FOR COPIES CONTACT: Records Management Section, Minerals Management Service, Tyson's Beltway Office Centre, Suite 601, 1951 Kidwell Drive, Vienna, Virginia 22180, (703) [illegible], FTS-8-[illegible].

There will be a charge for the reproduction of these documents.

SUPPLEMENTARY INFORMATION: The MMS prepares EA's and FONSI's for proposals which relate to exploration for oil and gas resources on the Atlantic OCS. The EA's examine the potential environmental effects of activities described in the proposals and present MMS conclusions regarding the significance of those effects. EA's are used as a basis for determining whether or not approval of the proposals constitutes major Federal actions that significantly affect the quality of the human environment in the sense of NEPA 102(2)(C). A FONSI is prepared in those instances where the MMS finds that approval will not result significant effects on the quality of the human environment. The FONSI in briefly presents the basis for that finding and includes a summary or copy of the EA.

This Notice constitutes the public notice of availability of environmental documents required under the NEPA regulations.

Donald P. Tromdell,

Acting Minerals Manager, Atlantic OCS Region.

[FR Doc. [illegible] Filed [illegible]]

BILLING CODE [illegible]

Outer Continental Shelf Oil and Gas Information Program; Availability of Pacific Summary Report 2

AGENCY: Minerals Management Service, Interior.

ACTION: Notice.

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DRAWING DOWN THE STRATEGIC PETROLEUM RESERVE: THE CASE FOR SELLING FUTURES CONTRACTS

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I. Introduction

That the oil shocks of the 1970s contributed to a host of economic woes faced by the United States and its OECD partners is by now well known. Several studies have pointed out that rapid and discontinuous changes in the price of oil, a major input to the economy's production process, can create problems of a special nature (see, for example, Eckstein [1979], Hubbard and Fry [1982], and Mork and Hall [1980]). Perhaps less well known is the fact that the price increase caused by the supply disruption is typically heightened by the role of private crude oil inventories (see Danielson and Selby [1980] and Verleger [1982]). Driven by uncertainty over future supplies and the expectation of profits from still higher prices in the future, private inventory accumulation at the onset of the disruption augments world oil demand, putting further upward pressure on oil prices.

Many policy responses have been put forth to combat the problems of the price spike attendant to a supply disruption. Tariffs and drawing-down the Strategic Petroleum Reserve (SPR) are two of the most prominent. The former discourages oil consumption directly by raising the price faced by consumers, while the latter increases the available supply of oil in the world market. Both would reduce the effective demand for OPEC oil, exerting downward pressure on oil prices. Neither of these, however, addresses the issue of private inventory build-up during the disruption.

To the extent that private inventory accumulation has contributed to the great price increases during disruptions, it is desirable to obtain policy instruments which could manipulate private sector stockpiling. In this paper, we analyze one such instrument, namely, the sale of futures contracts in SPR oil. Using a simple, analytical model, we show in Section II how the existence of SPR futures contracts could dampen private inventory demand by guaranteeing future supplies. In addition, futures market sales are compared with direct, spot market sales and conditions under which the former is more effective in blunting the price increase are derived. In Section III, we take the first steps towards quantifying our model by examining a special and empirically tractable case of the link between demand pressures and world oil prices. This, in turn, enables us to simulate a disruption in the world oil market in Section IV, and compare the effects of futures and spot market sales of SPR oil during the disruption. Finally, in Section V, we summarize the salient points and consider the implications of our results for policy.

II. Why Futures and Not Spot Market Sales of the SPR?

To make the case for futures market sales of SPR oil, it is important to examine first the rationale behind the private inventory behavior during a disruption. Economic optimization suggests that the speculative component of stocks be built when expected future prices are high relative to today's price, and drawn down when expected future prices are low. Since rising future prices can be identified with "disrupted" markets, the observed accumulation of private inventories is hardly surprising.

However, because the social cost of imported oil is not taken into account by firms, unregulated private inventory behavior is likely to be socially suboptimal. When the fact that, during a disruption, the spot market price acts as a trigger for various crisis-level activities is taken into account, the case for government intervention to keep the spot price down becomes all the more compelling.

The link between expected future prices and speculative hoarding mentioned earlier provides an opportunity for policy intervention if the government can manipulate price expectations. This is where the SPR can play a role. The announcement of an SPR drawdown strategy for the future lowers expected future profits from speculation. This, in turn, reduces inventory demand and spot prices today. Of course, the success of this intervention depends on how credible the announced SPR drawdown strategy is. By selling futures contracts, the government can guarantee that a specified amount of SPR oil will be available at a certain time in the future. Thus, instead of its traditional risk-sharing role, the futures contract here plays the role of a credible guarantor of the government's SPR drawdown policy.

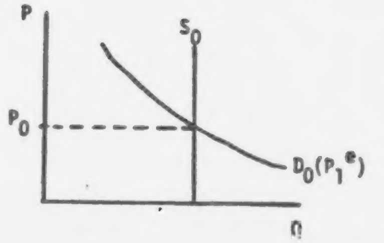
Now, the government can also lower the spot market price by selling SPR oil in the spot market. However, with futures market sales, the government is depressing the spot prices without releasing any oil. In addition, when this oil is released -- that is, when the futures contract becomes due -- the spot price in that period is also lowered, due to the presence of SPR oil on the market.

Under a regime of futures SPR sales, therefore, the trajectory of spot prices, will at the very least, be different from that under spot sales of the reserve. To make the case for futures contracts, though, we must show that they result in a sequence of spot prices which is in some sense preferable to the sequence generated by spot sales. Using a two-period model, we will show how much of the gains in spot-price reduction in the first period are achieved by futures sales. Moreover, the spot price in the second period is unambiguously lower under a futures contracts regime. Finally, as demonstrated in Section IV, the peak spot price during a year long interruption is lower when SPR futures are sold than when the oil is released onto the spot market.

Assume that spot market demand for oil depends not just on the spot price of oil, P_0, but also on the expected price one period into the future. Thus the inverse demand curve may be written P_1^e.

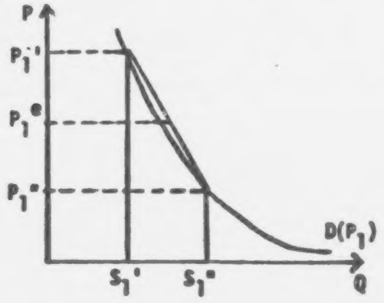
$$D = D(P_0, P_1^e), \quad D_1 < 0, \quad D_2 > 0.$$

Assume further that supply in the spot market is inelastic. The market-clearing spot price of oil therefore is dependent on the expected future price, P_1^e:



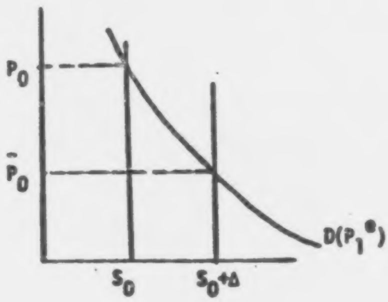
How are expectations of future prices formed? We assume that all agents have access to the same information and hence share common expectations of future events and their probabilities. Then, the expected future price is simply the mathematical expectation of the distribution of spot prices one period into the future. If we assume the demand curve is the same in both periods, then this distribution of spot prices is determined by the (inelastic) supply curves in the future period. For example, if supply will be S_1' or S_1'' with equal probability, then

$$P_1^e = \frac{1}{2}(P_1' + P_1'')$$

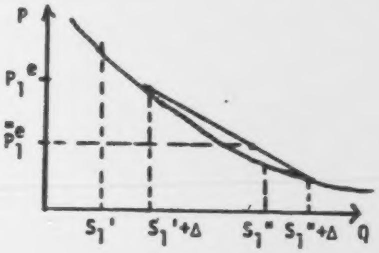


Note that, with a convex demand curve, P_1^e is *higher* than the price which would prevail if $\frac{1}{2}(S_1' + S_1'')$ is expected to occur with certainty. Thus, the uncertainty surrounding future supply has an upward effect on the expected price independently of the magnitude of that supply.

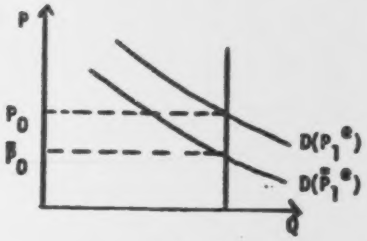
We are now in a position to examine the differential impacts of spot and futures market sales of the SPR. First, we consider the impact on the spot price in period 0. If the government sells an amount Δ in the spot market, the direct effect is an increase in supply to $S_0+\Delta$. This lowers the spot market price. The sale may affect future price expectations to the extent that agents expect some of the SPR oil to be re-sold in the next period. However, since the oil was bought by private firms, there is still uncertainty about how *much* of the Δ barrels will be sold and, in particular, Δ represents the *upper-bound* on the additional amount available in the future period. As a first approximation, we assume that the distribution of future supplies (and hence prices) is unaffected by the spot sales. The resulting spot market price, $\bar{P}_0$, therefore, is depicted as follows:



We can compare this now with the sale of Δ barrels worth of crude oil futures, for delivery one period from now. In this case, the entire distribution of future supplies is translated by the amount Δ, unambiguously lowering the expected price (and leaving the variance unchanged).



The lower expected price $\bar{P}_1^e$, in turn, will shift the spot market demand curve down, resulting in a spot market price $\bar{P}_0$ which is lower than P_0:



Thus, the benefits of a futures over a spot market sale depends on how the combined effects of a translation by Δ of the distribution of future supplies on the expected price and the attendant shift in spot demand stack up against the direct effect of an increase in Δ of spot market supply.

If we relax our assumption that spot market sales of the SPR leave the expected future price unaffected, then the spot price $\bar{P}_0$ will be slightly lower. However, the expected future price under SPR spot sales, $\bar{P}_1^e$, will always be higher than $\bar{\bar{P}}_1^e$, the expected future price under futures sales. This is so for two reasons. First, the mean of the distribution of future supplies is greater under a futures regime than under spot sales, since the former shifts the mean by Δ whereas the latter shifts the mean by the expected fraction of Δ which will be stored and sold in the next period. Second, the sale of SPR oil in the spot market increases the variance of future prices whereas a futures contract will leave this variance unaffected. Quite simply, since private firms are buying the SPR oil in the spot market, there is uncertainty about when, and how much, of this oil will be resold in the next period. By contrast, a futures sale will guarantee that an amount Δ will be sold in the next period. As we pointed out earlier, owing to the (plausibly) convex shape of the demand curve, this increased variance has the effect of increasing the expected future price when compared with a distribution with equal mean but lower price.

So far, we have contrasted futures and spot market sales of the SPR in terms of their effects on P_0, the spot price in period 0.. What about their effects on P_1, the period 1 (realized) spot price? Here, the results are unambiguous. If Δ barrels of crude oil futures become due in period 1, then period 1 supply is effectively increased by Δ. On the other hand, if Δ

barrels were sold in the period 0 spot market, any amount up to Δ may be resold in period 1. Ceteris paribus, the period 1 spot price under a futures sales of the SPR is a lower bound on the spot price under spot sales of the reserve.

Another way of looking at the preceding analysis is that there is an asymmetry between spot and future sales of the SPR. By selling oil in the spot market, the government is lowering the spot price, but conveying little or no information about future availability of oil. By selling futures contracts, the government is lowering the mean while keeping the variance unchanged of future supplies of oil, in addition to lowering the spot price when the contracts become due. The net result is that the sale of SPR futures achieves a large part of the price reductions attributed to spot SPR sales in the early stages of a disruption, and achieves greater reductions in price in the later stages. The exact magnitude of these benefits will be presented in Section IV.

Before proceeding to the empirical corroboration of our results, however, we should point out that drawing down the SPR by selling futures contracts has several other advantages in addition to a more favorable spot price trajectory.

First, the sale of SPR futures permits the government to achieve significant benefits, in terms of a reduced spot price, before releasing a drop of oil from the strategic reserve. This is significant because, as many authors have stressed, delays in decision-making can be extremely costly during interruptions. To the extent that the decision to sell futures contracts is easier to take than the decision to draw down the SPR physically, the futures option buys time for the government.

Second, even when the contracts come due, the government may be able to avoid drawing oil from the reserve. If the interruption is over before the due date, the contracts would have been priced higher than the now normal spot market price. The government can meet its contractual obligation in this case by buying oil in the spot market and giving it to the holder of the futures contract. Alternatively, the government could just buy back the futures contracts. Even if the interruption is not over when the contracts mature, the government can purchase oil in the spot market to meet its obligations. Of course, this will lose the price-reducing benefits of the futures sales described earlier. However, it is worth noting that if for reasons of national security say, the government is reluctant to withdraw SPR oil, it need not do so under a regime of futures contracts.

Before stating the third advantage of futures sales of SPR oil, we show that the sale of SPR futures would yield an expected revenue loss to the government. Inasmuch as some speculative inventory accumulation occurs, the expected future price P_1^e cannot exceed, in present value, the current spot price, P_0 (neglecting storage costs):

$$P_0 < \frac{P_1^e}{1+r}$$

where r is the market discount rate. For there to be a market for futures, the price of a futures contract, f_0, cannot exceed the spot price (otherwise agents would buy oil in the spot market and store it themselves):

$f_0 < P_0$

Combining these two inequalities leads to the conclusion that f_0 is less than the present value of the expected future price, or that the seller of futures makes an expected loss in revenues.

The point to keep in mind, however, is that P_1^e represents an expectation over several events, including the possibility that the interruption will end before the market opens in period 1. If the latter occurs, the actual spot price will be low from the softer market and the government will have made a revenue gain. The third advantage of SPR futures sales, therefore, is that, while expected revenues are negative, the actual gains and losses occur in a politically attractive direction: the government makes money if the disruption ends quickly, and loses money if the disruption is prolonged.

Having established the qualitative nature of the benefits from sales of SPR futures, we turn now to estimating quantitatively the most important of those benefits, namely the lowered spot price trajectory during an interruption.

III. Empirical Analysis

In this section, we present the ingredients of a model of the world oil market which will be used to test alternative SPR drawdown strategies.

As with most economic models, we begin with the notion that spot prices are determined by the forces of supply and demand in the market. Since we wish to simulate market behavior during "normal" and "disrupted" times, we assume that the supply price of OPEC oil depends in part on the extent to which actual oil production approaches maximum sustainable production (capacity production).[1] Hence we have:

$$(1)\quad PSPOT_t = \psi/PSPOT_{t-1} + \beta f\left(\frac{OUTPUT_t}{CAPACITY_t}\right), \qquad f' > 0, \text{ where}$$

PSPOT represents the spot price, OUTPUT represents actual OPEC oil production, and CAPACITY represents capacity OPEC production. In "normal" times, then, spot prices rise when production is increased toward capacity (where such an increase is effected to meet the increased demand, under the assumption that OPEC is a residual supplier -- the supplier of the marginal barrel on the world oil market).

But what about a disrupted market? For the sake of simplicity, we could divide total OPEC production into that which is produced by nondisrupted members (OUTPUT, as before) and that which is produced by disrupted members (DISRUP). From (1), it is easy to see why spot prices rise during a disruption. The capacity production (CAPACITY) falls, since it is reduced by the capacity of the disrupted producer(s). The output of the remaining producers, OUTPUT, should increase to take advantage of the higher oil prices. The resulting increase in the capacity utilization ratio raises the spot price.

Given the assumption that OPEC is a residual supplier of oil, we can use the fact that at any time the total quantity of oil supplied must equal the quantity demanded to solve for OUTPUT in terms of, among other things, demand factors. Suppose we make the following simple decomposition of the (free) world oil market:

Free World Oil Demand and Supply

Demand =	Supply =
USCON (U.S. oil consumption demand)	OUTPUT (production by nondisrupted OPEC members)
+ NETCON (oil consumption demand in the rest of the free world)	+ DISRUP (production by disrupted OPEC members)
+ USSPR (U.S. oil demand for the Strategic Petroleum Reserve)	+ USOIL (U.S. oil production)
+ USPSTCH (U.S. private oil inventory demand)	+ NONUSOPEC (oil production in the free world outside of OPEN and the U.S.)
+ FSTCH (inventory demand in the rest of the free world)	

Thus,

(2) USCON + NETCON + USSPR + USPSTCH + FSTCH =
OUTPUT + DISRUP + USOIL + NONUSOPEC.

We can rearrange (2) to get:

$$(3)\quad \text{OUTPUT} = (\text{USCON} + \text{NETCON}) - (\text{USSPR} + \text{USPSTCH} + \text{FSTCH}) - (\text{DISRUP} + \text{USOIL} + \text{NONUSOPEC}).$$

So production of the nondisrupted OPEC producers is just world consumption demand plus world inventory demand less production from other producers. Substituting (3) back into (1) yields:

$$(4)\quad \text{PSPOT}_t = \psi \text{PSPOT}_{t-1} + + \beta f\left(\frac{\text{USCON}_t + \text{NETCON}_t) + (\text{USSPR}_t + \text{USPSTCH}_t + \text{FSTCH}_t) - (\text{DISRUP}_t + \text{USOIL}_t + \text{NONUSOPEC}_t)}{\text{CAPACITY}_t}\right.$$

To complete the analysis, we need to specify the demand relationships. Let:

$$(5)\quad \text{USCON} = h(p_{us}, y_{us}(p_{us}), \text{DMY}) \text{ and}$$

$$\text{NETCON} = j(P_{nus}, y_{nus}(p_{nus}), \text{DMY}), \text{ where:}$$

p_{us} = price of a marginal barrel of oil in the U.S.;

y_{us} = U.S. real income;

p_{nus} = price of a marginal barrel of oil outside the U.S.; and

y_{nus} = real income in the rest of the free world.[2]

DMY = seasonal factors

IV. Analyzing the Impact of SPR Behavior on the World Oil Market

In the simplest possible case, we consider world oil demand as essentially a scalar multiple of U.S. oil demand. We take FSTCH, DISRUP, USSPR, NONUSOPEC, and USOIL as exogenous. Oil consumption demand outside the U.S. (i.e. NETCON) is γUCSON. For ease of exposition, U.S. work-in-process inventory is a fixed fraction of consumption, say ωUSCON. Speculative inventory demand in the U.S. is a function k of the mean and variance of the one-period expected profit from holding stocks, namely

$$(7)\quad k = k(\mu, \sigma^2)$$

where

$$(8)\quad \mu = {}_{t}PSPOT^{e}_{t+1} - (1 + r_t + \psi)PSPOT_t$$

and σ^2 is the variance of the distribution of expected returns.[3]

We can rewrite (4) as:

$$(9)\quad PSPOT_t = \psi PSPOT_{t-1} + \beta f\left(\frac{(1+\omega+\gamma)USCON_t + USSPR_t + k(\mu_t, \sigma^2_t) + FSTCH_t - (DISRUP_t + USOIL_t + NONUSOPEC_t)}{CAPACITY_t}\right)$$

To analyze the effect on the spot price of a drawdown of U.S. strategic stocks, we can totally differentiate (9) to obtain:

$$(10)\quad dPSPOT_t = \frac{\beta f'}{CAPACITY_t}\left((1+\omega+\gamma)\left(\frac{\partial USCON}{\partial p_{us}}\ dp_{us} + \frac{\partial VSCON}{\partial y_{us}}\,dy_{us}\right) + dUSSPR_t + k\mu(dPSPOT^e_{t+1} - (1+r_t+c_t)dPSPOT_t) + k\sigma^2\right).$$

The marginal acquisition cost of a barrel of oil in the U.S. differs from the spot market price of oil because of various market rigidities (including long-term contracts). We can think of the market-clearing U.S. price (in the absence of any government intervention in the form of tariffs or oil price controls) as adjusting to the spot price with a lag, i.e.,

$(11)\quad p_{us,t} = a_0 + a_1 p_{us,t-1} + a_2\,(PSPOT_t - p_{us,t-1})$, so that

$(12)\quad dp_{us,t} = a_2 dPSPOT_t$, and (10) becomes:

$$(13)\quad dPSPOT_t\left(\frac{1-\beta f'}{CAPACITY_t}\ (a_2(1+\omega+\gamma)\ \frac{\partial USCON}{\partial p_{us}} - k\mu(1+r_t+c_t)\right)$$

$$= \frac{1-\beta f'}{CAPACITY_t}\ \left((1+\omega+\gamma)\ \frac{\partial USCON}{\partial p_{us}}\ dy_{us,t} + dUSSPR_t + k\mu dPSPOT^e_{t+1} + k\sigma d\sigma^2\right).$$

If the effect on oil prices induced by the change in strategic stock accumulation has only a negligible effect on real income, then (13) becomes:

$$(14)\ - dPSPOT_t\left(\frac{\beta 1- f'}{CAPACITY_t}\ (a_2(1+\omega+\gamma)\ \frac{\partial USCON}{\partial p_{us}} - k\mu\ (1+r+c)\right)$$

$$= \frac{\beta 1- f'}{CAPACITY_t}\left(dUSSPR_t + k\mu dPSPOT^e_{t+1} + k\sigma^2 d\sigma^2\right),\ \text{or,}$$

$$(15)\quad dPSPOT_t = \sum_{i=0}^{\infty} \left(\frac{k_\mu Q_t}{D_t}\right)^i \left(\frac{Q_{t+1}}{D_{t+1}}\right) dUSSPR_{t+i}$$

$$+ \sum_{i=0}^{\infty} \left(\frac{k_{\sigma^2} Q_t}{D_t}\right)^i \left(\frac{Q_{t+1}}{D_{t+1}}\right) d\sigma^2_{t+i} \text{ , where}$$

$$(16)\quad Q_{t+1} = \frac{\beta f'}{CAPACITY_{t+1}}$$, the spot price response to a required change in OPEC output, and

$$(17)\quad D_{t+1} = 1 - \frac{\beta f'}{CAPACITY_{t+1}} \left(a_2(1+\omega+\gamma) \frac{\partial USCON}{\partial P_{us}} - k\mu(1+r+c)\right),$$

the feedback, or general equilibrium, response of spot prices to induced changes in demand. The greater is the OPEC price response or the response of speculative inventory demand to expected profits, the larger is the effect of the SPR change on spot prices. The greater is the general equilibrium price response, the smaller will be the ultimate effect on spot prices on changes in SPR accumulation.

Implications for Drawdown Strategies

We are now in a position to examine the relative effectiveness of direct drawdowns of the SPR for spot market sales and guaranteed drawdowns next period (as per a futures market). Abstracting from effects on the variance of the distribution of expected future prices, the change in the spot price for a given drawdown today from the SPR is:

$$(18)\quad \frac{dPSPOT_t}{d(-USSPR_t)} = \frac{-Q_t}{D_t} < 0.$$

Hence a contemporaneous drawdown of SPR oil will unambiguously reduce the spot price. The magnitude of the reduction depends on the two general equilibrium responses discussed earlier.

The effect on today's spot price of a drawdown next period announced today is:

$$(19)\quad \left.\frac{dPSPOT_t}{d(-USSPR_{t+1})}\right|_t = \frac{k_\mu Q_t}{D_t}\ \frac{-Q_{t+1}}{D_{t+1}} < 0\ .$$

If CAPACITY remains the same over the two periods (i.e., if the disruption gets "no worse" or "no better"), (19) could be rewritten as

$$(20)\quad \left.\frac{dPSPOT_t}{d(-USSPR_{t+1})}\right|_t = -k_\mu\left(\frac{Q_t}{D_t}\right)^2.$$

Whether or not the guaranteed drawdown tomorrow decreases today's spot price more than a direct drawdown today is an empirical question. That is, it depends on the magnitudes of k_μ, Q_t, and D_t. For the delayed strategy to be absolutely superior in this respect, we require that:

$$(21)\quad k_\mu D_t > Q_t,$$

that is, that

(21') (Response of speculative demand to expected profits) x (General equilibrium response of demand to the price change induced by the change in stockpiling policy) > (Response of spot price to changes in oil demand).

This is intuitively appealing, as it says that the announced drawdown tomorrow will be more effective in lowering today's spot price if: (a) the profit elasticity of speculative demand is high; (b) demand is fairly elastic with respect to price changes; or (c) spot prices do not respond completely to changes in the capacity utilization ratio in the same period (i.e., they depend on their own past values). Note that these conditions are similar to those found in the more general case in Section II.

To consider these results in the context of a futures market, we must complicate the situation. First, even in examining a "guaranteed drawdown" strategy, it is important to analyze the effects of the timing of refilling the reserve and the consequent impact on world oil prices. Second, the crude oil futures market may also have an effect on the variance of the distribution of expected future prices. To calculate the net relative effectiveness of the two strategies requires some knowledge of these other influences. Any empirical resolution of the issue must treat the feedback effects in the world oil market, the extent to which inventory behavior is forward looking, and the timing of any refilling of reserve stocks.

To examine the impact of a futures market in SPR oil on private inventory behavior and to compare the effectiveness in reducing oil prices of spot market sales and futures market sales, we will use simulations of an econometric model of the U.S. economy and the world oil market. The oil market model is the one described in Section III. The core macroeconomic model is discussed in detail in Hubbard and Fry [1982]. We have modeled optimizing private inventory behavior for the United States just as we described earlier in this section; a complete description may be found in Hubbard [1982].

To measure the costs of an oil supply disruption, we first simulate an undisrupted market from the fourth quarter of 1981 (1981:4) to the fourth quarter of 1985 (1985:4). In this "control" scenario, combined Iranian and Iraqi production recovers throughout the interval. U.S. oil production is projected to drop slowly throughout the interval, and production outside the U.S. and OPEC is expected to increase slowly and steadily.

The disruption which we simulate is one in which Saudi Arabian output is interrupted in calendar year 1983. Such a shock could arise from a blockade or an embargo. By 1984:1, Saudi Arabia ceases to be disrupted. The resulting price increase is not as large as not might guess because of increased production from nondisrupted OPEC members, the drop in consuming country demand (because of the higher prices), and the soft market at the onset of the disruption. Table 1 compares the paths of crude oil spot prices and U.S. private inventory accumulation across the two scenarios. The assumed accumulation pattern for the U.S. Strategic Petroleum Reserve is also given.

TABLE 1

Comparison of Control Scenario and Disruption Scenario

	Spot Price ($/BBL)		Private Stock Change (1000 B/D)		SPR Fill (1000 B/D)	
	C	D	C	D	C	D
1981:4	31.70	31.70	520	520	350	350
1982:1	31.70	31.70	-640	-640	200	200
2	31.60	31.60	700	700	200	200
3	31.20	31.20	490	490	200	200
4	31.20	31.20	-670	-670	200	200
1983:1	30.60	36.80	-1080	-910	200	0
2	29.60	45.30	390	700	200	0
3	28.30	54.70	570	960	200	0
4	27.10	59.50	-470	-130	200	0
1984:1	26.20	51.90	-1250	-1180	200	200
2	26.00	45.10	190	370	200	200
3	26.90	39.40	480	580	200	200
4	28.50	35.20	-360	-480	200	200
1985:1	30.40	35.10	-1070	-1250	200	200
2	32.10	31.50	270	80	200	200
3	34.50	29.20	560	360	200	200
4	37.40	28.00	-230	-520	200	200

Two results from Table 1 are particularly interesting. First, spot prices rise fairly sharply after the onset of the disruption in 1983:1. (By the end of the solution interval, spot prices are actually lower in the disrupted scenario because of the large reductions in oil demand. The marginal cost of a barrel of oil to U.S. refineries is still slightly higher by 1985:4 in the disrupted scenario.) Second, private inventory behavior responds quickly to expected future profits. Inventory accumulation in 1983:2 - 1983:4 in the disrupted scenario ran almost 100 percent higher than in the base case. Stocks are decumulated relative to the control by the end of the interval, so that an inventory level equilibrium is restored.

We can now test the effectiveness of two SPR drawdown policies: (1) a spot market sale of 1,000,000 barrels per day during 1983:2, and (2) a sale of futures contracts in 1983:2 to sell 1,000,000 barrels of oil per day in 1983:3. To refill the depleted 90,000,000 barrels, we assume in both cases that the SPR fill rate after the disruption (i.e., in 1984 and 1985) will be 300,000 barrels per day instead of 200,000 barrels per day. Table 2 compares the effect on spot prices and on U.S. private inventory accumulation for the two strategies.

TABLE 2

Comparison of Spot Market and Futures Market Oil Sales

	Spot Price ($/BBL)		U.S. Private Stock Change (1000 B/D)	
	Spot Sale	Futures Sale	Spot Sale	Futures Sale
1983:1	36.80	36.80	-910	-910
2	42.50	44.05	570	480
3	52.70	49.20	960	850
4	58.00	55.20	-120	-110
1984:1	51.10	49.30	-1180	-1170
2	44.70	43.30	370	350
3	39.00	38.10	570	570
4	35.40	34.60	-460	-480
1985:1	35.80	35.40	-1230	-1210
2	31.60	31.50	100	100
3	29.70	28.80	380	380
4	28.85	27.70	-570	-490

Comparing the results in Table 2 with those for the disrupted scenario (with no policy intervention) in Table 1, it is evident that both strategies influence spot prices and private inventory behavior. The size of the impacts is dependent upon the fact that policy changes are examined in a "U.S. only" analysis; that is, foreign inventory accumulation assumptions are held constant across scenarios.

Two interesting patterns surface. First, while the direct drawdown (spot market sale) of the SPR oil in 1983:2 lowered the spot price in that quarter, the sale of futures contracts in SPR oil for delivery in 1983:3 also lowered the spot price immediately. Moreover, under the futures sale option, spot prices remained slightly lower for the rest of the interval.

Second, the drawdown strategies blunted some of the extra private stockpiling which occurred because of the higher expected prices during the disruption. Comparing the private stockpiling trajectories in Table 2 reveals that part of the spot market sale was added to private stocks. By guaranteeing supplies to the market for 1983:3, the futures sale reduced private inventory accumulation during the disruption by more than the spot market sale. By 1985, both paths returned to that prevailing in the absence of policy intervention.

V. Conclusion

In this paper, we have attempted to make a case for drawing down the strategic petroleum reserve by selling futures contracts. The motivation behind this idea is the observation that, during oil supply disruptions, private inventories act in a manner to exacerbate the sharp rise in oil prices. We showed how sales of SPR futures, unlike other policy responses, dampen inventory demand by affecting expectations of future oil prices. Using a two-period model we identified conditions under which the sale of an equivalent amount of SPR oil in the spot and in the futures market would lead to a more favorable sequence of spot prices in the latter case. Our empirical analysis, based on a model of the world oil market and the U.S. economy, showed that futures sales (i) achieved much of the price-reducing benefits in the early stages of a disruption and (ii) led to a lower price trajectory overall when compared with spot market sales. Finally, we identified other possible advantages of SPR futures, which center mainly around the fact that futures contracts postpone, and in some cases avoid, the physical withdrawal of oil from the reserve.

It goes without saying that our results represent a first-pass at analyzing a new policy option for responding to a disruption in the oil market. Both our theoretical and empirical analyses can be extended to incorporate more features of the real world. Yet, we suspect the qualitative nature of our results will remain unchanged: selling futures contracts in SPR oil can be at least as effective in dampening spot market prices as a direct sale in the spot market.

On the other side of modelling and estimating these benefits, there remains the question of how such a scheme may be implemented. As there currently exists only a very thin futures market in crude oil, and as attempts to set up such a market in the past have met with limited success, the procedure by which the government could sell SPR futures contracts deserves considerable attention. Although we believe sales of SPR futures during a disruption are feasible, and in many ways easier to effect than spot market sales, we also feel that the success of such a policy depends on the amount of thought given to its implementation before the interruption occurs.

FOOTNOTES

[1] The background for such an approach is discussed in Hubbard and Fry [1982] and Nordhaus [1980].

[2] Income depends on the price of oil in a complex way because of the effects of changing oil prices on the trade balance; because of the ways in which changes in inflation may alter the real economy; and because of the impact of changing oil prices on potential economic performance (aggregate supply). A more complete discussion of these roles and a macroeconomic model underlying them are given in Hubbard and Fry [1982]. A discussion of appropriate functional forms (i.e., in terms of specification and lag structure) for the demand equations is also presented in that paper.

[3] r and c are the interest and physical carrying costs of inventories, respectively. (They are assumed to remain constant.) ${}_{t}PSPOT^{e}_{t+1}$ is today's expectation of next period's spot price.

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CABOT

TRANSPORTATION ENERGY CONTINGENCY PLANNING

HEDGING TRANSIT FUEL SUPPLIES
IN THE COMMODITY FUTURES MARKET

FINAL DRAFT

February 8, 1983

CABOT CONSULTING GROUP

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BY CABOT CONSULTING GROUP

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EXECUTIVE SUMMARY

Hedging transit fuel supplies in the commodity futures market offers transit officials predictability in budgeting for fuel costs and may serve as an additional source of fuel in a tight market situation.

Transit property officials face volatile diesel fuel prices. The deregulation of crude oil prices has resulted in an oil market in which consumers face frequent price fluctuations. The possibility of being hit with a sharp price increase is always present. As a result, budgeting for fuel costs has become an even more difficult task then it was before deregulation.

Transit property officials also face uncertainties in diesel supply availability. The termination of petroleum product allocation regulations ended the transit systems' "priority user" status. Diesel suppliers are no longer required by the federal government to provide transit properties with their full diesel requirements. Moreover, the suppliers themselves are no longer guaranteed deliveries by refiners and may be unable to continue deliveries to transit properties in a future petroleum supply emergency.

Volatile prices and uncertain supplies are two problems which must now be addressed by transit system planners if the hazards of increased prices and decreased supplies are to be mitigated. One option available to transit officials is hedging their fuel supply in the commodity futures market.

Hedging in the futures market can add predictability to the fuel budget by essentially locking in the net amount of money the transit system will have to pay out for fuel. Any additional costs incurred under the normal supply contract resulting from higher prices in the wet barrel market can be covered by profits realized in the futures market, given the proper hedging strategy.

Hedging can result in the acquisition of diesel fuel by transit operators. Most transactions in the futures market, however, do not end in a delivery because the market is primarily designed to serve as a financial instrument. The cost of taking or making delivery is often prohibitive, and it is simply easier to end a transaction by taking an offsetting position in the market. Putting cost aside, taking delivery of diesel fuel in the futures market, is an option for some transit properties operating in states on the east coast, in the south and midwest. The key variable in assessing the feasibility of taking delivery is proximity to a terminaling area situated along one of the major interstate petroleum product pipeline systems. For all practical purposes, transit operators in the Western Plain states, the Rocky Mountain states, and the West Coast should not view delivery as a viable option because the petroleum product pipelines were not designed to transport supplies from the Gulf and East Coasts to the West.

Though all transit operators in the United States can not view the futures market as an additional source of fuel supply, all transit operators can view the futures market as a mechanism by which they can reduce their exposure to price shocks.

In considering how to use the futures market, transit officials have two options: (1) transit officials may enter the futures market themselves and hedge the fuel supplies they expect to receive; or (2) transit officials could accept only fixed price bids from fuel suppliers, thereby forcing the suppliers into the futures market to hedge the fuel they expect to deliver to the transit property.

Hedging in the energy futures market is not without risk. A hedger can sustain a net loss at any given time. However, the nature of the market is such that a net loss will likely be balanced out by a subsequent net gain. The proper hedging strategy is necessary to reduce the chance of sustaining a loss. Moreover, there are institutional safeguards within the futures market which protect hedgers against financial disasters.

Hedging in the energy futures market is not the definitive solution to volatile prices and supply uncertainties. However, it warrants serious consideration as a means for mitigating the effects of adverse price movements and supply problems on transit operations throughout the country.

I. BACKGROUND

A. Purpose

The purpose of this study is to assess the feasibility of mass transit operators trading in the fuel oil futures market as a means to reduce price risk associated with buying and storing fuel, and as a means to enhance fuel supply security. Trading in the fuel oil futures market is one option that has been identified as being of potential benefit to mass transit operators in their effort to minimize fuel costs both in normal and energy crisis situations, and as a means to insure fuel availability during petroleum supply interruptions.

Trading fuel oil in the futures market is a relatively new activity begun in the United States in 1978. Because trading fuel oil futures is a new practice, very few people within the petroleum industry, much less bulk users of petroleum products, understand the nature of the market, how it operates, and its potential costs and benefits.

This study was undertaken to advise and inform mass transit operators on the commodity futures market so that operators will be in a position to make a valid judgement on the merits of trading fuel oil futures for their own transit systems. This report will describe and explain how the futures market operates. It will identify and describe the potential costs and benefits and present the specific questions that need to be answered before the feasibility of futures trading by one particular transit system can be determined. The study will reach some broad conclusions as to the feasibility of transit systems trading fuel oil futures. This study cannot provide the definitive statement on the merits of any one particular transit property trading in the futures market. Such a determination can be made only by the individual operators who have an in-depth understanding of their transit system: specifically, the management perspective within the organization, the financial situation, the fuel supply situation, regulations governing publicly owned transit systems, and the availability of other options.

B. Statement of the Problem

Operation of a mass transit system is heavily dependent on availability of diesel fuel. The financial well being of mass transit systems is significantly influenced by the cost of diesel fuel. Consequently, mass transit operators must continuously address the problems of diesel supply acquisition and budgeting for fuel acquisition.

Concerning the problem of price, the transit operator is not interested only in obtaining the lowest price at any given time, but he is also interested in predicting future fuel costs so that they can be accurately factored into the budget for the upcoming year. In essence, the operator must ask: "How much does diesel cost me now, and how much will diesel cost me one month, six months or a year from now?" Answering these questions has been made more difficult as a result of the decontrol of petroleum in January, 1981. Supply and demand will determine the price of diesel. Supply and demand for diesel fuel, and, consequently, diesel prices are heavily influenced by factors not directly related to diesel fuel or the transportation sector. Such factors as weather, strikes, federal government policies and programs, domestic economic conditions, international tensions, and international economic and trade conditions all influence diesel fuel prices.

Price fluctuations of diesel fuel not only influence the amount of money an operator must pay for new supplies, but they also influence the value of diesel fuel already paid for and being held in storage. Thus, in the event of a price decrease, the transit property will incur a loss (on paper) equal to the decrease times the gallons being held. Though this is not an out-of-pocket loss, it still represents a loss in terms of an opportunity cost--money spent for diesel could have been spent on other things. On the other hand, if diesel prices rise, the value of the stored diesel increases, but more money is required to pay for future deliveries of fuel. Since there is no way to transfer the increased value of stored fuel to the purchase of new fuel, the transit operator will suffer a greater than expected out-of-pocket expense when it purchases additional fuel.

Because almost all fuel contracts include a price escalation clause, the transit operator is liable to all price jumps without any recourse.[1] Yet, it should be noted that if the wholesale price of diesel declines during the life of the contract, the dealer is often not required to pass on the decrease in full to the end user; that is, the transit operator.

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[1] Many supply contracts allow the buyer the right to refuse delivery of a portion of the fuel specified in the contract. The buyer can refuse delivery if he does not need the fuel due to lower than expected requirements. He can also refuse delivery if the market price has fallen below the contract price. He may substitute lower priced spot fuel for higher priced contract fuel. The degree of protection offered by the right of refusal clause depends on the portion of fuel which may be refused. The higher the portion, the greater the protection. Inclusion of a right of refusal clause mitigates, but does not eliminate the potential price disadvantage stemming from the absence of a de-escalation clause.

In short, in a decontrolled fuel market, and using the standard fuel acquisition process and contract, the transit operator stands a significant chance of sustaining higher fuel expenses than anticipated, or, at the very least, of being unable to take maximum advantage of any drop in prices. In this instance, the only way to manage fuel costs is to monitor and act on expected price changes, and the only way to reduce fuel costs is to reduce consumption which can only be achieved by using more efficient engines and/or cutting back service.

This point leads back to the basic fact that bus service requires diesel fuel. As was stated in the report, Transit Fuel Supplies Under Decontrol,[1] transit operators can no longer depend on federal allocation controls for receipt of diesel fuel supplies. Each transit operator is on his own in acquiring adequate supplies of fuel in both normal and crisis situations.

Under normal conditions, acquisition of supplies through the standard bidding process may be satisfactory, particularly when the world oil market is experiencing a glut. However, the standard fuel acquisition procedures are likely to prove unsatisfactory in a market experiencing a sudden reduction in supplies or a sharp increase in demand. In the event of another crude petroleum supply interruption, the transit operator will face a drop in available supply. At the same time, people will switch from automobiles to mass transit systems, thereby requiring increased service by the systems. The transit system will be in the position of needing more diesel fuel when there is less available.

In a petroleum supply interruption the transit operator may find himself receiving less diesel than he contracted for, and, in the worst case, he may find his supplier unable to maintain deliveries at all. In this event, the transit operator will be forced into the open market to bid on any diesel fuel supplies available. The transit operator will be bidding against all other consumers of diesel fuel, the most significant of which are truckers and farmers. In a severe crisis situation, obtaining any fuel at any price will be a major accomplishment. In a free market, it is assumed that the buyer offering the highest price for the commodity will receive the commodity. In a severe supply crisis caused by a natural disaster or a politically motivated interruption, it is possible that there will be little or no fuel to be had at any price through the normal distribution channels.

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[1] Transportation Energy Contingency Planning: Transit Fuel Supplies Under Decontrol, U.S. Department of Transportation, No. DOT-I-82-20, May 1982.

C. One Option: Hedging in the Fuel Oil Futures Market

This study examines hedging in the fuel oil futures market as one option available to transit operators. Hedging will be assessed within the context of its cost and benefits in reducing price risk, and in the context of enhancing one's supply security.

Hedging fuel oil futures is being put forth as just one option to be considered by transit operators. There are other means that can be used to reduce price risk and enhance supply, but they will be examined in other studies. The intent of this study is to provide transit operators with enough information about this particular option to permit them to make their own judgement on the applicability and usefulness of trading diesel futures given their own situation.

II. DESCRIPTION OF FUTURES MARKET OPERATIONS

A. Moving From a Forward Market to a Futures Market

At first glance, the practice of trading commodities on the futures market appears to require an understanding of complex forces unfamiliar to the normal businessman. Even reading the market quotations on the financial page of newspapers can be somewhat intimidating. Yet, underneath the numbers and the jargon lies a market whose operation is actually a relatively simple affair.

In a futures market, people buy and sell futures contract which obligates each party to make or take delivery of a commodity in a specific future month for a specific price. This activity is similar to the normal fuel acquisition process of most transit properties. Normally, contracts are signed by a company and a supplier for delivery of a certain volume of diesel fuel over the next 12 months for a certain price, activation of the escalation clause notwithstanding. In this case, the parties are negotiating a forward contract, that is the contract calls for delivery of a commodity in the future and delivery will actually occur.

The primary difference between the forward contract and a futures contract is that the forward contract is arranged to fit the specific needs of the buyer in quantity and quality of the commodity and the time and place of delivery. A futures contract is standardized in these factors: the quantity is always the same; the quality must be within a given range; time of delivery is fixed; and place of delivery is at a given location. Another major difference between a forward contract and a futures contract is that a forward contract is negotiated with the intent to actually take delivery. There is rarely such an intent in the buying and selling of futures contracts.

The transition of a forward market into a futures market normally occurs when five elements exist. First, there must be a large number of buyers and sellers within the specific product market. Second, there must be some standardization in the quality or grade of the commodity. Third, there must be an element of risk stemming from frequent price fluctuations. Fourth, information pertaining to supply and demand of the commodity must be publicly available and readily accessible. Fifth, there must be a need to arrange for future delivery or receipt of the commodity. If these five elements exist, the forward market may mature into a futures market which, in essence, is more of a financial instrument to be used, not as a substitute for normal distribution channels, but as a means to reduce price risk.

Its usefulness as a means for actually obtaining supplies of a commodity is secondary to its usefulness as a means for protecting one's financial position. In a futures market, the contract itself becomes that which is readily marketable, whereas, in the forward market, the commodity is the marketable item.

In short, the futures market should not be perceived as being at odds with or opposite to the more familiar forward market, but as a progression from the forward market. The futures contract should also not be perceived as an alternative to the forward contract, but as a complimentary instrument to protect one's financial and supply position in the forward market.

B. The Futures Contract

A futures contract is a legally binding commitment to make or take delivery at a specified location in a designated month of a standardized quantity and quality of a commodity at an agreed to price. Thus, a futures contract embodies:

- location where delivery is to be made
- month in which delivery is due
- volume to be delivered or received
- physical properties of the commodity
- price

Of the five elements constituting the futures contract, only one, price, is negotiated by the buyer and seller. The other factors are determined and fixed by the commodities exchange. Because of the high level of standardization, the contract itself takes on the trappings of a marketable commodity. It is the contract that is bought and sold. Its value is guaranteed by the exchange in which the contract is traded.

The factor that makes the futures contract unique is that, in the vast majority of transactions, neither party expects to make or take delivery of the commodity, in this case, fuel oil. Each party expects to liquidate its position; that is, to get out of its obligation to make or take delivery before the contract comes due by taking an opposite, offsetting position.

In the petroleum futures market, a contract represents 1,000 barrels or 42,000 gallons. Consequently, trading is undertaken in increments of 42,000 gallons.

As stated above, the price is the only feature of the futures contract negotiated by the buyer and seller. This is done through their respective agents or brokers. The brokers reach an agreed upon price through open bidding on the floor of the exchange.

C. Hedging

1. Who Enters the Futures Market and Why

Everyone who enters the futures market does so for at least one of three reasons: (1) to reduce financial risk inherent in price changes; (2) to enhance supply; or (3) to make money through speculation. The individual who enters the future market for either the first or second reasons or both is referred to as a hedger. The individual who enters the futures market for the third reason is called a speculator.

Before a detailed examination of hedging is begun, it is first useful to understand the basic difference between hedgers and speculators. A hedger enters the market in order to reduce financial risk, whereas, a speculator enters the market to assume financial risk.

A hedger is an entity involved in the manufacture, marketing or consumption of the commodity being traded. That is, a hedger deals with the commodity in the normal course of his business. For example, hedgers in the fuel oil futures market are by and large petroleum refiners, refined product wholesalers (i.e., jobbers), and bulk consumers of petroleum products. Their business requires that they deal with fuel oil on a day-to-day basis. Hedgers are often referred to as commercials.

Because commercials are involved in the buying and selling of fuel oil as a normal part of business, they are constantly susceptible to financial losses as a result of adverse price movements. To reduce this financial risk, commercials hedge their positions in the futures market. To hedge one's position means to take a position in one market to protect the position already held in another market.

A speculator is an entity or individual who enters the market to trade a commodity which has no bearing whatsoever on his normal day-to-day business. He is not in the market to protect a position already held against financial risk. In fact, by entering the market he is exposing himself to financial risk. The speculator exposes himself to financial risk in the hope of obtaining substantial profits. His goal is to buy low and sell high or sell high and buy low.

For example, a doctor may trade fuel oil contracts. The doctor does not have any position in the wet barrel[1] market to protect. Moreover, the doctor has no means by which he may make delivery or take delivery of fuel oil; therefore, he knows he must terminate his position with an opposite, offsetting transaction. The doctor is speculating that the price will move in one particular direction. When and if it does, he will close out his position and earn a profit. If the price does not move in the expected direction, he will still have to take an offsetting position by the close of the contract period in which case he will incur a loss. The attractiveness of speculating in the futures market lies in the possibility of making large profits with little capital. At the same time, it is just as possible to suffer a severe loss just as quickly, and with as little capital.

It is the speculative nature of the futures market which has received the widest attention by the general public, thereby creating the image that the futures market is little more than a craps shoot for "industry insiders". This image does not accurately reflect the operation of the futures market, nor is it a fair representation of the parties involved in the futures market. Speculators are usually not "industry insiders", but exactly the opposite--outsiders whose only interest in the particular industry is the price at which a particular commodity is being traded. Secondly, speculators are not corrupting the futures market, but rather supporting its existence by providing liquidity to the market. It is the speculator that allows the futures market to function by his willingness to accept the risk that the hedger is attempting to cast off.

The focus of this study is not on the speculator, but on the hedger. The transit property which enters the futures market will do so for the purposes of hedging his financial and supply position; that is, to reduce the risk inherent in buying, storing and consuming a large volume of diesel fuel over time.

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[1] Throughout this report, reference will be made to the "physical" market or "wet barrel" market. These are synonymous terms. They both refer to the market in which the actual commodity--in this case diesel fuel--is bought and sold. The physical or wet barrel market includes both spot and contract transactions. In essence, the physical or wet barrel market is the opposite of the futures market in which it is the futures contract that is bought and sold.

2. Hedging Defined

In its simplest form, hedging is the act of assuming a position in one market which offsets the risks inherent in holding a position in another market. The most common hedge in the fuel oil market is undertaken by jobbers (i.e., wholesalers) who buy the fuel oil from refiners and resell the product to retailers and/or end-use customers. By holding the product for any length of time, the jobber makes himself vulnerable to a price decrease. In a market characterized by falling prices, a jobber holding inventory may see his expected profit margin shrink or disappear altogether. To protect himself against such an eventuality, the jobber may assume a position in the futures market opposite to that held in the physical market (i.e., wet barrel market). That is, at the time the jobber buys the fuel from the refiner, he will sell a futures contract obligating himself to deliver fuel at a fixed price at some specified point in the future. Assuming that the price at which he bought the fuel in the physical market is exactly the same as the price at which he sold the futures contract, and assuming that the volumes traded in both markets are exactly the same, the jobber has achieved what is technically known as a perfect hedge--the opposite positions in the two markets offset each other perfectly. No matter what price does, the hedger is protected. If price falls, he loses in the wet barrel market but gains in the futures market. If price climbs, he gains in the wet barrel market but loses in the futures market. In short, his profit margin is locked in; it will not widen, but it will also not narrow.

A hedge does not have to be the taking of opposite positions in two markets. Under certain circumstances, a hedge may involve buying in both markets, or selling in both markets. For example, let us assume that a transit operator expects to purchase and take custody of 42,000 gallons of diesel fuel in the physical market from its normal supplier for $1.00 a gallon over the next six month period. In order to protect itself against price escalation during the course of the six month period, the transit property buys a fuel oil futures contract (i.e., takes a long hedge) for 42,000 gallons at $1.00 per gallon. If the price of diesel should increase by, say $.10 a gallon, the transit property would have to pay an additional $4,200 to his supplier. In order to offset this additional expenditure of $4,200 in the physical market, the transit operator may draw from the futures market the added value (i.e., the profit) on its long hedge which would be $4,200. (Originally, the futures contract had a value of $42,000. The 10¢ per gallon increase meant that the contract was now worth $46,200). The $4,200 profit could be withdrawn from the futures transaction and applied to the contract in the wet barrel market. Therefore, no net increase in expenditures would be incurred by the transit property because the loss sustained in the physical market would be balanced out by the profit made in the futures market. The transit systems fuel budget would remain intact.

This example represents a perfect hedge. That is, the position in the physical market was completely covered by the position in the futures market. In actuality, perfect hedges are not common. Factors at play in the physical market result in imperfect hedges. These factors will be examined in a subsequent section of this report.

As discussed on the previous page, hedging may result in preventing the hedger from sustaining a loss. However, it must be understood that hedging may also result in preventing the hedger from realizing a windfall profit. If a hedger assumes opposite positions in the physical and futures market, no matter what direction prices take, he will not expand his profit margin or realize a savings because the loss in one market will negate the profit or savings in the other market. Thus, hedging can be a useful tool to reduce the risk of financial loss, but it can also reduce the opportunity to realize unexpected savings or profits. The essential question then becomes: "Is the prime motivation to reduce the risk of financial loss, or is it to realize maximum profit or savings? The assumption in this study is that transit operators are more interested in reducing their exposure to diesel price increases than they are in taking advantage of an unexpected price decrease.

Though hedging is aimed at reducing financial risk, transit authorities must recognize that risk is not entirely eliminated. Hedging itself may result in a net financial loss. Circumstances under which a loss may result are presented in a later section.

3. Long Hedge

One of two basic hedging strategies is referred to as a long hedge or buyer's hedge. The long hedge is adopted by parties who will be acquiring fuel over time and who want to protect themselves against rising prices. The objective of a long hedge is simple: buy low and eventually sell high. The buyer is also seeking predictability in fuel costs. He wants to lock in the price of future fuel deliveries at a fixed level. This motivation, and hence, the long hedge, is most applicable to the situation in which the transit system finds itself. The transit system's objective is to protect itself against rising diesel fuel prices. Any price increase could eat into funds designated for other operating and capital expenses and, in the case of privately owned properties, rising fuel prices will reduce the profit margin.

In all but a few cases, transit systems negotiate a diesel fuel contract with a supplier in which the price is tied to some published price posting (often Platt's Oilgram listings) to which the supplier adds his margin. The escalation clause in the contract permits the supplier to pass through to the transit system 100 percent of any price increase which occurs during the course of the contract. Most contracts run for twelve months. To protect itself against price increases, a transit system can place a long hedge in the futures market. This long hedge would involve buying diesel fuel contracts in the futures market.

For purposes of illustration, let us assume that a transit system takes a long hedge fearing rising prices. As expected, prices increase steadily during the course of a supply contract. The additional cost is passed through by the supplier to the transit system. The transit system has to pay out more than it had budgeted, and thus incurs a financial loss in the physical market. This loss in the physical market, however, is offset by a profit realized in the futures market. Because of the price increase, the futures contracts held by the transit system have a greater monetary value in each subsequent month. Consequently, liquidating the long position; that is, selling the contract at a price higher than the purchase price, results in a profit. This profit can then be applied to covering the increased cost of the diesel fuel in the physical market. The end result is that the transit system has sustained no net loss (i.e., the fuel budget has not been exceeded). The additional costs in the physical market are offset by the profits in the futures market.

By taking a long position in the futures market; that is, by obligating itself to buy diesel fuel in a certain future month at a certain price, the transit property reduces its vulnerability to price increases. However, it also relinquishes the opportunity to benefit from a decrease in prices in the physical market, which, given certain contract conditions, could result in savings to the transit system.

Exhibit I presents an example of a long hedge.

EXHIBIT I

EXAMPLE OF A TRANSIT PROPERTY'S LONG HEDGE

PROBLEM: Transit property wants to protect its fuel budget against rising diesel prices expected in next three months.

Transactions

	Physical Market	Futures Market
April 15	Budgeted diesel costs: May @ 92¢ per gallon June @ 94¢ per gallon July @ 96¢ per gallon	Buy futures contract: June @ 92¢ per gallon July @ 94¢ per gallon August @ 96¢ per gallon (Note: Trade in month following month being hedged.)
May 15	Buy diesel @ 93¢ per per gallon	Sell June futures @ 93¢ per gallon
	Therefore: 1¢ per gallon over budget	Therefore: 1¢ per gallon profit
	NET RESULT: No Change In Budget	
June 15	Buy diesel @ 95.5¢ per gallon	Sell July futures @ 96¢ per gallon
	Therefore: 1.5¢ per gallon over budget	Therefore: 2¢ per gallon profit
	NET RESULT: 0.5¢ per gallon profit	
July 15	Buy diesel @ 96.5¢ per gallon	Sell August futures @ 97¢ per gallon
	Therefore: .5¢ per gallon over budget	Therefore: 1¢ per gallon profit
	Net Result: .5¢ per gallon profit	

This example shows that by taking a long hedge, the transit property is able to negate the impact of rising prices on its budget. In fact, the long hedge results in the transit property paying less than had been budgeted in June and July even though prices went up. Recognizing that this example is presented only for the purpose of illustrating a long hedge, it should be understood that such results are possible. However, transit operators should not expect a long hedge to result in lower than expected costs. It is more realistic to expect a long hedge to yield a smaller increase in costs than would have been incurred if no hedge had been taken. In short, though a net profit may result from a long hedge, it is safer, particularly in the area of public service planning, to view hedging as a means to reduce net increases in costs.

Referring to the example in Exhibit I, it should be understood that if the price had gone down while the long hedge was held, the transit property would have still been obligated to buy in the futures market at the fixed price, and thus, would have sustained a loss when it liquidated its position (i.e., when it sold at a price lower than the purchase price). This loss in the futures market, however, would have been negated by the reduced cost in the physical market, thereby, resulting in the transit property paying the same amount it would have paid had there been no decrease. In short, the transit property would not have realized a savings from the price decrease, but neither would it have suffered increased costs.

Unfortunately for transit properties, there is one factor in the standard procurement contract that may result in the transit property suffering a net loss as a result of hedging long in the futures market. In the preceding explanation of the impact of a price decrease on a long hedge, an assumption was made that the supplier in the physical market would pass through to the transit operator the full reduction in price. The money already budgeted, but not paid to the supplier would be used to cover the loss in the futures market. The problem with this example is that price reductions are not always passed through in full to the transit property by the supplier. Almost all supply contracts include an escalation clause to protect the supplier's margin; however, many supply contracts do not include a de-escalation clause which requires the supplier to pass through a price reduction in full to the consumer. If the supplier does not pass the reduction in full through to the operator, there is no unspent money in the budget to cover the loss in the futures market. Funds would have to be taken from accounts other then the fuel account.

The question then becomes: "Does the fact that a fuel contract does not include a price de-escalation clause diminish the attractiveness of going long in the futures market?" The answer is "yes", to the extent that it adds an additional element of risk to hedging long. However, this risk need not exist. Moreover, the problem does not rest in the futures market per se, but in the supply contract. Therefore, in order to reduce the risk of sustaining a net loss in hedging long in the event of a price decrease, the transit operator should stipulate that a price de-escalation clause be included in the supply contract. This clause should require the supplier to pass on to the transit property any price reduction in full.

Many transit properties do have the right to refuse delivery on some portion of the contracted volume. If prices fall, but the property is still required to pay the higher contract price, refusing delivery on fuel up to the ceiling specified in the contract, and buying less expensive fuel in the local spot market will help to realize savings in the physical market. These savings can be used to partially offset the loss incurred in the futures market resulting from a long hedge.

In summary, a long hedge can provide protection against sudden sharp price increases which may result from normal market forces or extraneous events affecting the availability of diesel fuel. On the other hand, there is a trade-off inherent in this protection. The transit operator that goes long in the futures market gives up its opportunity to realize savings in the event of a price decrease. Price is locked in. The long hedger is more interested in avoiding unexpected expenditures due to increasing prices, than in realizing unexpected savings stemming from falling prices. In order to maximize the protection offered by a long hedge, the transit operator must stipulate the inclusion of a price de-escalation clause in its supply contract.

4. Short Hedge

The second basic hedging strategy is referred to as the "short" or seller's hedge. The short hedge is commonly adopted by one who expects to be holding the commodity in inventory prior to reselling it at a later date. The primary motivation behind the short hedge is avoidance of losses resulting from declining prices. That is, the short hedger is attempting to reduce his vulnerability to buying high and having to sell low, thereby incurring a financial loss or, at the very least, a reduced margin.

The typical short hedger in the diesel fuel market is the jobber (i.e., wholesaler) who receives his diesel fuel from the refiner and places it in storage pending subsequent delivery to retailers or end-users. While holding the fuel in inventory, he is vulnerable to a drop in price, which would reduce the market value of his fuel. To protect the value of his inventory, in essence, his margin, the jobber will enter the futures market and sell a futures contract. That is, he obligates himself to make delivery of a certain volume of diesel fuel at a certain time for a certain price. By selling in the futures market, the jobber has assumed opposite positions in the physical market (where he bought) and in the futures market (where he sold). By establishing these opposite positions, the jobber has locked in his margin--any drop in prices resulting in a financial loss in the physical market will be balanced out by a profit in the futures market.

By taking a short position in the futures market, however, the jobber relinquishes the opportunity to realize windfall profits as a result of rising prices. If prices rise in the physical market, the jobber will be holding fuel with a greater market value. Assuming he can move the product at its higher price, he will realize greater profits than he anticipated. Yet, these unexpected profits in the physical market must be used to offset the loss incurred in the futures market, for short hedgers always lose when prices rise. This is because the short hedger sold low and must buy high to liquidate his position. Thus, hedging short should be perceived as a defensive act protecting one's margin at the cost of maximizing profits. The short hedger is protecting himself against falling prices, while the long hedger is protecting himself against rising prices.

Short hedges are not limited to fuel oil jobbers. A short hedge might also be taken by a transit property given the right conditions. An example of a short hedge by a transit system is presented in Exhibit II.

EXHIBIT II

EXAMPLE OF A SHORT HEDGE

PROBLEM:	A transit property has a fixed price contract. Diesel prices have unexpectedly begun to decline. The operator notifies the supplier that the system will not take delivery on the amount of diesel specified in the "right of refusal" clause when the market price drops below the contract price. The operator immediately places an order to sell futures; i.e., takes a short hedge, knowing that a short hedge benefits from falling prices.	
April 15	Fixed diesel prices: May @ 96¢ per gallon June @ 97¢ per gallon July @ 98¢ per gallon	Sell futures contract: June @ 96¢ per gallon July @ 97¢ per gallon August @ 98¢ per gallon
May 15	Buy diesel @ 96¢ per gallon when market price is 95¢ per gallon	Buy May futures @ 95¢ per gallon
	Therefore: 1¢ per gallon loss (i.e, Operator pays 1¢ per gallon over market price)	Therefore: 1¢ per gallon profit
	NET RESULT: ZERO BALANCE	
June 15	Buy diesel @ 97¢ per gallon when market price is 94¢	Buy June futures @ 94¢ per per gallon
	Therefore: 3¢ per gallon loss (i.e., Operator pays 3¢ per gallon over market price)	Therefore: 3¢ per gallon profit
	NET RESULT: ZERO BALANCE	
July 15	Buy diesel @ 98¢ per gallon when market price is 94¢	Buy July Futures @ 94¢ per gallon
	Therefore: 4¢ per gallon loss (i.e., Operator pays 4¢ per gallon over market price)	Therefore: 4¢ per gallon profit
	NET RESULT: ZERO BALANCE	

By taking a short hedge, the operator is able to balance the loss he incurs in the physical market by having to pay above market prices with profits from the futures market. The short hedge allows the operator to take advantage of the falling prices to the extent that his net expenses are not higher than they would have been had he had no fixed price contract.

A short hedge would be the proper strategy for transit operators who enhance their supply security by maintaining diesel fuel in bulk storage facilities. A basic risk in storing diesel is that prices will go down after the diesel has been purchased and stored. Funds spent on fuel might have been spent on other items. In short, falling prices increases the opportunity costs associated with storing the fuel. Though these costs may be accepted as the price for supply security, a short hedge minimizes the possibility of being caught with high price oil. Bulk storage of diesel and a short hedge are not only compatible strategies, but yield the best of both worlds--supply security and price protection.

To further clarify which strategy (long or short) should be considered by any particular transit operator, Exhibits III and IV present in a simplified format, the conditions under which a long hedge or short hedge would be favorable or unfavorable.

Exhibit III-A presents the impact of rising and falling prices on a buyer (i.e., the transit property) and a seller (i.e., the diesel oil supplier) who have a long-term contract containing an escalation clause but no de-escalation clause in the physical market.

Exhibit III-B presents the impact of rising and falling prices on a buyer and seller in the physical market who have a long-term contract that includes a de-escalation clause.

Exhibit III-C presents the impact of rising and falling prices in the futures market on a long hedge (i.e., buying a contract) and a short hedge (i.e., selling a contract).

EXHIBIT III-A

PHYSICAL MARKET

$1.00/GALLON LONG-TERM CONTRACT WITH AN ESCALATION CLAUSE BUT NO DE-ESCALATION CLAUSE

	Rising Prices					Falling Prices				
Market Prices	1.00	1.10	1.20	1.30	1.40	1.00	.90	.80	.70	.60
Prices Paid By Transit Property	1.00	1.10	1.20	1.30	1.40	1.00	1.00	1.00	1.00	1.00
Variance From Contract Price Favorable [Unfavorable]	0	[.10]	[.20]	[.30]	[.40]	0	[.10]	[.20]	[.30]	[.40]
Market Prices	1.00	1.10	1.20	1.30	1.40	1.00	.90	.80	.70	.60
Prices Charged By Supplier	1.00	1.10	1.20	1.30	1.40	1.00	1.00	1.00	1.00	1.00
Variance From Margin Favorable [Unfavorable]	0	0	0	0	0	0	.10	.20	.30	.40

	Rising Prices	Falling Prices
When Buying (End-User: Transit Property)	Lose (Increased Expenditures)	Lose (Pay Above Market Prices)
When Selling (Diesel Supplier)	Neutral (Maintain Profit Margin Assuming Dealer's Costs Increase)	Win (Expand Profit Margin Assuming Dealer's Costs Decrease)

EXHIBIT III-B

PHYSICAL MARKET

$1.00/GALLON LONG-TERM CONTRACT WITH AN ESCALATION AND DE-ESCALATION CLAUSE

	Rising Prices					Falling Prices				
Market Prices	1.00	1.10	1.20	1.30	1.40	1.00	.90	.80	.70	.60
Prices Paid By Transit Property	1.00	1.10	1.20	1.30	1.40	1.00	.90	.80	.70	.60
Variance From Contract Price Favorable [Unfavorable]	0	[.10]	[.20]	[.30]	[.40]	0	.10	.20	.30	.40
Market Prices	1.00	1.10	1.20	1.30	1.40	1.00	.90	.80	.70	.60
Prices Charged By Supplier	1.00	1.10	1.20	1.30	1.40	1.00	.90	.80	.70	.60
Variance From Margin Favorable [Unfavorable]	0	0	0	0	0	0	0	0	0	0

	Rising Prices	Falling Prices
When Buying (End-User: Transit Property)	Lose (Increased Expenditures)	Win (Pay Less Than Expected)
When Selling (Diesel Supplier)	Neutral (Maintain Profit Margin Assuming Dealer's Costs Increase)	Neutral (Maintain Profit Margin Assuming Dealer's Costs Decrease)

EXHIBIT III-C

PHYSICAL MARKET

COMMODITY FUTURES MARKET

	Long Hedge: Buying $1.00/Gallon Contract									
Futures Prices	1.00	1.10	1.20	1.30	1.40	1.00	.90	.80	.70	.60
Variance From Contract Value	0	.10	.20	.30	.40	0	[.10]	[.20]	[.30]	[.40]
	Short Hedge: Selling $1.00/Gallon Contract									
Futures Prices	1.00	1.10	1.20	1.30	1.40	1.00	.90	.80	.70	.60
Variance From Contract Value	0	[.10]	[.20]	[.30]	[.40]	0	.10	.20	.30	.40

	Rising Prices	Falling Prices
When Buying a Contract	Win (Value of Contract Increases)	Lose (Value of Contract Decreases)
When Selling a Contract	Lose (Value of Contract Decreases)	Win (Value of Contract Increases)

Examination of Exhibits III-A and III-C reveals that a long hedge is desirable for the buyer if prices rise: the loss in the physical market is offset by the profit in the futures market. However, if prices fall, a long hedge would prove disastrous because the hedger would be paying above-market prices in the physical market and sustain a loss in the value of his contract in the futures market. Exhibit III-C does indicate, however, that a short hedge would be desirable for a buyer expecting prices to fall. Profits from the futures market could be used to balance out payment for above-market priced fuel in the physical market.

Examination of Exhibits III-B and III-C reveals that a long hedge in the futures market is desirable for a buyer expecting or experiencing rising prices in the physical market. The increased expenditures in the physical market would be offset by profits in the futures market. If a long hedge is held and prices fall, the buyer is also protected against a net loss because the loss sustained in the futures market is offset by the savings accrued in the physical market. In essence, inclusion of a de-escalation clause permits a long hedge in which there is no downside (i.e., there is little chance of sustaining a net loss no matter what direction prices move. The lesson to be learned is that in order to maximize the benefits of a long hedge, the transit property must pay only the market price for fuel in the physical market.

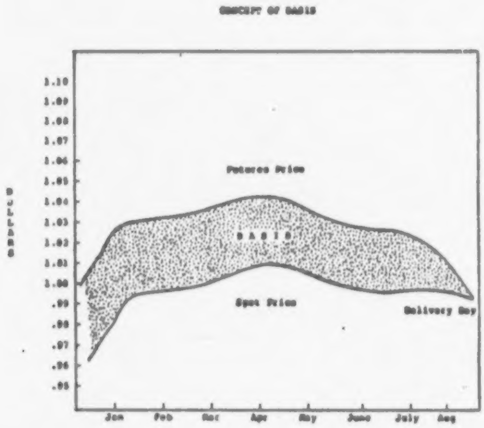
Further examination of Exhibits III-B and III-C reveals that a short hedge would be undesirable for a buyer in the physical market if prices rise. A loss in the physical market in the form of increased expenditures would be accompanied by a loss in the futures market resulting from a drop in the value of the contract. If prices fall, however, the hedger gains in both markets. This is an enviable position in which to be, yet the possibility of falling prices and the consequences makes this a high risk position.

5. The Concept of Basis and The Imperfect Hedge

The earlier examples of hedges were all perfect hedges where the risk was entirely eliminated. As stated above, perfect hedges require that future prices and spot prices track one another perfectly; that is, they must move in exact tandem. Thus, if the spot price increases by one cent, the futures price will increase one cent.

Under normal market conditions, the futures price will be higher than the spot price in the delivery area. So, for example, one would expect to see a No. 2 fuel oil futures price of 95 cents when the spot price is at 90 cents. The difference between the futures price and the spot price is called the basis. In the futures price and the spot price is called the basis. In theory, the basis remains constant until delivery day (specified in the futures contract) when the futures and spot prices converge. This concept is illustrated in Exhibit 4.

EXHIBIT IV



Basis consists of two elements: storage basis and location basis. Storage basis is the difference between the spot price and the futures price in the delivery area. It is called storage basis because the difference, in part, represents the holding cost built into the futures price which is not found in the spot price.

Location basis is the difference between the spot price in delivery area and the spot price in the buyer's local market. The location basis primarily represents the transportation cost involved in moving the commodity from the delivery area specified by the exchange to the local market. Although at any time, there is only one futures price for a given commodity, there may be many spot prices depending upon market factors characterizing each local market. One factor influencing a local spot price is the cost of transporting the commodity to the local market.

Basis would present no problem to the hedger if it remained constant. The difference could be allowed for in calculating the price at which the hedger would take or make delivery in the futures market. There would be no risk. However, the basis does vary over time and because basis varies over time, most hedges are called imperfect hedges.

Basis varies, in part, as a result of changes in the cost of storing fuel. There are two key elements in storage costs: physical maintenance, and the cost of holding the fuel which is tied to the cost of money. Thus, as interest rates rise, the cost of holding fuel rises; as interest rates fall, so does the cost of holding fuel. Changes in the basis also results from changes in the costs of transporting fuel. Transportation costs vary depending on mode of transportation and cost per unit per time. Common carrier interstate pipelines transport the majority of petroleum products within the United States. Each pipeline has its own tariff (i.e., charge to users). Tariffs are not static, and may be changed with the approval of the Federal Energy Regulatory Commission. Other factors such as the demand/supply balance also influence the size of the basis.

Because the basis varies, and because it is not possible to predict with certainty the direction or degree of variation, the hedger must face what is called basis risk. The risk in basis risk stems from the fact that a hedger may suffer a loss as a result of a widening or narrowing of the basis depending upon what type of hedge is held. For a short hedge, a narrowing basis means a net loss, and a widening basis means a net profit. For a long hedge, a narrowing basis means a net profit, and a widening basis means a net loss.

By hedging in the futures market, the hedger is substituting basis risk for price risk. This tradeoff is attractive because experience has shown that jobbers and consumers run a greater risk of being more severely affected by adverse price movements than by adverse basis variation.

Basis risk is rarely eliminated. It can be reduced by picking the most opportune month to liquidate a futures position, and by selecting the right futures market (i.e., point of delivery).

D. Institutions

1. The Commodity Exchange

The commodity exchange is an organized market whose sole business is the trading of futures contracts. Exchanges are located throughout the country, generally at points where there are substantial transportation and storage facilities, and in cities through which a large volume of the traded commodity passes. Consequently, the leading exchange in cattle and pork bellies is in Chicago. The leading grain exchanges are in Chicago, Kansas City, and Minneapolis. The leading cotton exchange is in New York City. No. 2 heating oil futures are currently being traded in New York City at the New York Mercantile Exchange, and will soon be traded at the Chicago Board of Trade and the Chicago Mercantile Exchange.

Commodity exchanges are membership organizations whose members are involved in the production, processing, and marketing of one or more of the commodities being traded, or are brokers whose business it is to place orders for others. Individuals or businesses who wish to trade in the exchange do so through brokers whose firms are members of the exchange. Almost any broker can place an order in a particular exchange, for even if his firm is not a member, the chances are it has a relationship with another firm that is a member. These relationships among brokerage firms preclude the need on the part of the potential hedger to seek out a broker whose firm is a member of a specific exchange.

A commodity exchange is operated according to rules established by its own governing board. The governing board exists to insure that all transactions are undertaken fairly and as efficiently as possible. The governing board in no way influences prices of commodities traded in the exchange. The governing board and other exchange officials scrutinize all operations and enforce all rules recognizing that the success of the exchange is entirely dependent upon its being perceived as an equitable market where all parties are accorded the same rights and responsibilities.

2. Role of the Broker In Placing An Order

Commodity brokers perform the same basic function as do stock brokers. They execute orders at the direction of the client. To open an account with a broker one needs only to deposit the required margin with the broker and give him an order to buy or sell a futures contract. For purposes of illustration, let us assume that a transit operator wants to protect against a rise in diesel prices in the up-coming months so it decides to take a long hedge and buy a diesel futures contract.

The first step is to contact a broker and find out what the margin is on a diesel futures contract (margins are fully discussed in a following section). That sum of money is deposited with the broker, and he is asked to place an order buying one diesel fuel contract (i.e., actually one No. 2 heating oil contract). From this point on, the entire transaction is out of the hands of the transit system, and in the hands of the broker.

The brokerage firm contacts its office in New York City (assuming the trade is to be done on the New York Mercantile Exchange) by its own private wire. The order is received by an operator who records the order and gives it a number. The order then passes through a time stamp machine and is given to a phone operator. This phone operator is in constant direct communication with another phone operator within a few feet of the "pit" on the floor of the exchange where the trades are carried out. The order is communicated to the pit operator who, in turn, passes the order immediately to the firm's broker in the pit. The pit broker signals that he is a buyer by raising his hand and turning his palm in (towards himself), and shouts his buying prices, the number of contracts for sale, and contract month(s). Another broker spots the buying broker, identifies himself as a seller by raising his hand and turning his palm away from himself and shouts his selling price, the number of contracts he wants to buy, and contract month(s). The two brokers nod to one another to signal agreement, and the trade is complete. The broker signals back to the phone clerk that the deal is done, and marks done on his "pit card" the time the order was placed, the price, the broker who sold the contract, and the delivery month.

The phone clerk calls the phone operator who in turn calls back the wire room. The message is then sent from the wire room back to the broker's originating office at which time the transit property is notified that the contract was bought and the price at which it was bought.

This entire transaction usually takes less than five minutes. While the brokers in the pit are involved in their trading, officials of the Board of Trade, called pit reporters, are watching over the action. Their job is to record all price changes of a quarter of a cent above or below the last recorded price. Any such change is immediately recorded electronically and a central operator feeds the new prices into the ticker. The new price is known by interested parties around the world within minutes of the trade. Key prices for every commodity traded in an exchange are published daily in major newspapers and the Journal of Commerce. (See Exhibit V).

From the transit system's point of view, the system could not be simpler. There is practically no time spent on the actual trade by system employees. There is no involvement or contact of any kind with the opposite party in the transaction. All technicalities of the trade are handled by the broker. The broker's fee for these services are addressed in a following section on the costs of trading futures.

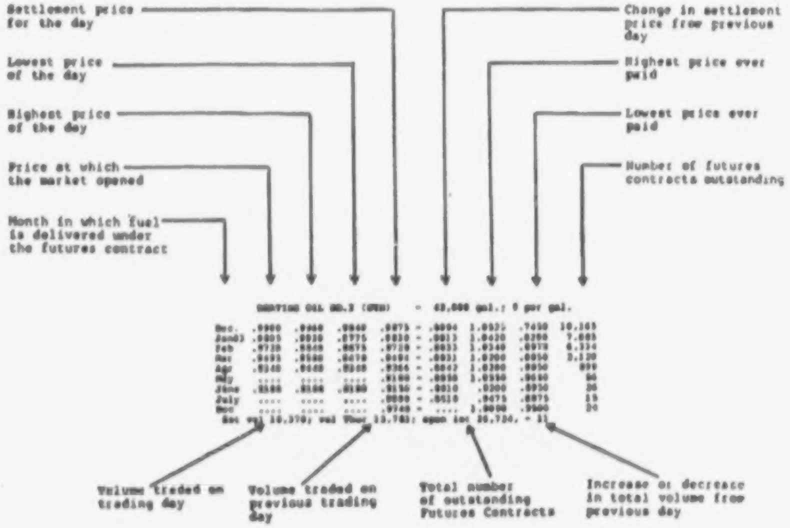
When closing out a position in the futures market, the broker plays the same role, and the same process is used.

3. Role of the Clearinghouse

The U.S. dollar is negotiable currency accepted literally throughout the world. As long as people perceive the United States government as being a sound institution, the dollar will be perceived as a sound asset. An analogous situation exists in the futures

EXHIBIT V

AN EXPLANATION OF COMMODITIES FUTURES DATA
FROM THE WALL STREET JOURNAL


Settlement price for the day
Lowest price of the day
Highest price of the day
Price at which the market opened
Month in which fuel is delivered under the futures contract
Change in settlement price from previous day
Highest price ever paid
Lowest price ever paid
Number of futures contracts outstanding
HEATING OIL NO.2 (NYM) - 42,000 gal.; $ per gal.
Volume traded on trading day
Volume traded on previous trading day
Total number of outstanding Futures Contracts
Increase or decrease in total volume from previous day

SOURCE: Wall Street Journal, November 8, 1982.

market. A futures contract is perceived as a sound asset marketable in its own right for one basic reason. The futures contract is backed by the exchange--actually by the clearinghouse associated with the exchange. As long as the clearinghouse is perceived as being a sound institution, the futures contract traded in the exchange will be perceived as a sound asset.

Each exchange has its own clearing association or house. The clearinghouse is composed entirely of exchange members. These exchange members are individuals or corporations, at least one officer of which must be a member of the exchange. Not all members of the exchange are members of the clearinghouse.

The clearinghouse exists primarily to insure the integrity of the exchange. This is done by holding assets against which a claim can be made on a defaulted contract. The financial soundness of the clearinghouse itself is insured by: (1) the funds deposited by each clearinghouse member upon joining the association; (2) the margins deposited by every buyer and seller at the start of every trade; (3) the surplus reserve held by the clearinghouse; and (4) by the total membership of the exchange who are liable based on their proportion of the total volume of business done through the exchange over a certain period.

The clearinghouse is also responsible for documenting all transactions in the exchange, and for keeping financial and legal records. As soon as the brokers in the pit have arranged a trade, the clearinghouse steps into the transaction to assume the opposite position to each party. That is, to the hedger who is selling, the clearinghouse assumes the role of the buyer; to the hedger who is buying, the clearinghouse assumes the role of the seller. At the close of trading each day, the clearinghouse should have a net position of zero; that is, it should have assumed the position of buyer in as many contracts as it assumed the position of seller. In days when "buys" do not equal "sells", an error has been made. The outstanding trades examined by the exchange and corrections are made as soon as possible--usually in the next day of trading.

The clearinghouse is the arm of the exchange which monitors each position to insure that each trader maintains the required margin. This role is more fully examined in the section on costs which addresses the role of margins in the futures market.

Lastly, the clearinghouse is responsible for facilitating the delivery process by matching the parties who want to take delivery with those parties who want to make delivery. The clearinghouse monitors the delivery process to insure that the contract specifications are met and that payment upon delivery of the commodity is made promptly.

From the point of view of the futures trader, the clearinghouse is the most important institution in the futures market. Not only does it insure the integrity of each contract, but it also minimizes the risk, the administrative burden, and the normal hassles often associated with a business transaction. The trader does not have to worry about the solvency of the other party. The trader does not have to negotiate over fine points of finance terms, product quality or delivery terms. The trader does not have to be concerned about re-negotiations of established contracts. Personalities do not come into play. Default on a futures contract is extremely unlikely.

In turn for providing these services, the clearinghouse receives a commission on each contract. More specifically, a member of the clearinghouse is assigned to each trade and that specific clearinghouse member receives a small commission on each trade.

4. Types of Orders

The vast majority of orders placed in the futures market are called "market orders". A market order is an order which is to be executed at the best price possible at the time the order reaches the pit. Unless otherwise specified by the hedger, all orders are market orders.

Other types of orders exist which carry certain restrictions on when they can be executed by the broker. A limit order restricts the broker to executing a trade only if a specified price is reached. Thus, if a broker is selling a contract under a limit order he can execute the order only if prices on the floor reach the specific price set by the customer.

If the broker is buying a contract under a limit order, he can execute the trade only at or below the predesignated price. In a limit order, the hedger needs to specify the exact price down to a fraction of the penny at which the broker is either to buy or sell. If the price of the limit order is not met, no order will be executed.

In theory, a limit order is advantageous to the hedger because it insures that a position will only be taken on his terms--that is, at his price. This enhances the probability that expected profits will be realized. However, limit orders have a major drawback. There is no guarantee that a limit order will be executed even if the predesignated price is reached on the floor. Prices fluctuate while trading is going on, and there is no guarantee that your broker will either be in the pit at the time your price is reached, or, if he is, there is no guarantee that your broker will be able to negotiate a trade at your price before the price changes.

There is a high possibility that the limit order will not be executed because the exact price was not reached on the floor. The broker has no flexibility; if the trading price gets to within half of a cent of the hedger's predesignated price, but does not reach it, no trade is executed. In short, a limit order may serve the hedger's best interest if the target price is reached and if a trade is made at that price, but it may also act as a hindrance to entering the market.

There is another type of order which may be placed that offers greater protection than a simple market order, but does not involve the restrictions of a limit order. This type of order is called a stop order or stop-loss order. A stop order directs a broker to initiate a trade only if a specified price is reached in the pit (similar to a limit order). When this certain price is reached, the stop order is treated as a market order allowing the broker to execute the trade at the best possible price. There is no guarantee that the trade will be made at the specified price called the stop price. However, there is a guarantee that a trade will be executed.

The stop order is often used by hedgers when they are interested in closing out a position already held in the market. Their objective is either to protect a profit, or minimize a loss. For instance, let us assume that in October a transit operator buys a February diesel fuel contract at 98¢ per gallon expecting the price to rise. At the same time, the transit property wants to limit the potential loss to 2¢ per gallon if prices should decline so it places a stop order to sell at 96¢ per gallon. By early December, diesel prices have declined unexpectedly to 97¢. They continue to fall until mid-December when the price reaches 96¢. At this time, the broker executes the stop order to sell at the best possible price. Thus, the stop order has resulted in the transit system limiting its loss to approximately 2¢ per gallon.

The hedger may use the stop order to protect a profit. For example, let us assume that in March a transit system sells a September fuel oil contract at 98¢ expecting prices to decline. By June, the price has fallen to 93¢, thereby yielding the transit property a 5¢ profit. However, by early July, the price has started to climb and stands at 95¢. To protect a portion of the profit, the transit operator places a stop order to buy at 96¢, thereby insuring a profit of approximately 2¢ per gallon.

There is no guarantee that a stop order will be executed at the stop price. However, the hedger is assured that the order will be executed at the best possible price at that time.

D. Delivery

1. Rarity of Deliveries

A unique feature of the futures market is that one buys or sells a contract obligating himself to take or make delivery of a commodity when he has no such intention to do so. This apparent anomaly primarily stems from two factors. First, the primary usefulness of the futures market lies in its ability to provide financial protection and not as an alternative means of acquiring a commodity. Second, there is rarely a need to make or take delivery. As a result of these two factors, delivery of commodities in the futures market is a rare occurrence. Less than seven percent of all No. 2 fuel oil futures transactions terminate in delivery.

Though actual delivery of the commodity is rare, the ability to do so is crucial to the viability of the futures market. In fact, operation of the futures market is premised on the ability of sellers to deliver the specified commodity to the buyer, and on the ability of the buyer to take delivery. If delivery were impossible, there would be nothing to guarantee the convergence of futures prices and spot prices as the delivery date approaches. The futures and spot market would be totally distinct markets with little or no relationship between price movements in either market. The fact that delivery can be made or taken is the element in the futures market which allows the futures contract to be treated as one treats the actual commodity in the physical market.

Yet, it is a fact that in the commodities that have been traded for many years, actual delivery is a rare occurrence. The same has been found to be true in the few years heating oil has been traded in the futures market.

Deliveries are rare, in part, because a large portion of traders in the futures market are speculators and are not hedgers. That is, they are not commercials and, therefore, have no facilities for making or taking delivery. Speculators must terminate their market position with an offsetting market position.

Another reason deliveries are rare is that the futures contract specifies a particular port or pipeline; i.e., delivery area, where delivery is to be made. It is often the case that commercials do not operate or have business relationships in the delivery area. It is, therefore, easier to terminate the market position with an opposite, offsetting position.

The primary reason most hedgers do not terminate their position by making or taking delivery is cost. Let us assume that a commercial does not operate in the delivery area but is predisposed to receiving the fuel oil. He will have to arrange for the transportation of the fuel oil from the delivery area to his local market. The cost of transporting the fuel may make taking delivery uneconomical. In instances where a buyer's futures price is lower than the local spot price, the transportation cost may negate or be more than the difference. In this case, it is wiser simply to offset the futures position and use the cash to buy on the local spot market and receive the product through normal channels.

Another reason for the rarity of deliveries is the narrow requirements of the futures contract covering quality, quantity and lifting. As mentioned earlier, the strict quality, quantity and lifting[1] requirements are crucial to the viability of the fuel oil futures contract by adding predictability to the transaction. These features are important in trading the contracts. Ironically, this same strictness in the definition of these features may become a hindrance in delivery of the commodity. The mass transit operator and even the fuel oil jobber may find that his facilities and schedules are not sufficiently flexible to accommodate the specifications of the contract. Modifying facilities or rearranging schedules may result in a dollar and manhour cost not economically justifiable.

In short, it may be said that, under normal market conditions, there is no need to take delivery. Any profit derived from hedging in the futures market is more easily put to good use by offsetting the futures position and applying the profit against a long term contract, or to immediately purchasing fuel in the local spot market.

2. Taking Delivery

The question then becomes, when, if ever, is it useful for a transit operator to accept delivery on a fuel oil futures contract. The answer is, when normal market conditions do not prevail. In the event of a tight supply situation due to unexpectedly high demand, or in the event of a shortage situation stemming from a petroleum supply disruption, a transit property that has a long futures market position may decide it wants to take delivery. In this event, exchanges permit the transit property to take delivery by using one of two methods. The first method involves taking possession of the actual diesel fuel at a time and place specified by the clearinghouse. The second method involves acceptance of a warehouse receipt which entitles the holder to draw from inventory the specified quantity of diesel fuel at whatever time is convenient for the buyer. The first method is referred to as the wet barrel delivery mechanism, and the second method is referred to as the depositary receipt delivery mechanism.

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[1] "Lifting" is the process of removing the diesel from the storage tank.

a. "Wet Barrel" Delivery

The New York Mercantile Exchange uses the "wet barrel" delivery mechanism for all refined petroleum products, including No. 2 fuel oil. The "wet barrel" delivery mechanism is also found in the proposed crude oil futures contract in both the New York Mercantile Exchange and the Chicago Board of Trade, as well as in the gasoline futures contract proposed by the Chicago Mercantile Exchange.

Trading of petroleum futures contracts subject to the wet barrel delivery mechanism is stopped in the month immediately preceding the delivery month. The exact day trading is to cease is specified by the exchange. The month in which trading ceases is usually called the position month but may also be called the spot month. On the day trading ceases, the clearinghouse matches up all open long positions with open short positions. All parties holding open short positions are obligated to deliver product to a terminal or pipeline facility in the delivery area. The seller has some flexibility in deciding at which approved terminal or pipeline facility he will be depositing the fuel. The buyer is obligated to lift the product from the designated holding point. The buyer has some flexibility in deciding when to lift the product, though lifting must occur during the delivery month.

The buyer pays for the fuel by making a payment in full to his broker. The broker, in turn, transfers the payment to the clearinghouse, which passes it to the seller's broker, who passes payment to the seller. The exact timing of the payment process is governed by the rules of the exchange. Generally, payment is to be received by the seller within 24 hours after the product has been lifted from at the terminal.

As mentioned earlier, the clearinghouse is responsible for insuring that both parties fulfill their obligations. Default by either party will result in a fine, and in the event that the seller is unable to deliver the required quantity and quality of fuel, the clearinghouse is responsible for finding a substitute seller.

It is important for transit operators to recognize that the trading of fuel oil futures is a relatively recent development. Consequently, there has not been a substantial amount of institutional experience in the area of wet barrel deliveries. Exchanges are currently reviewing existing delivery procedures, and may, at any time, modify existing rules or adopt new rules with the approval of the Commodity Futures Trading Commission, an agency of the federal government. It is important that any transit operator entering the futures market carefully examine the rules of the exchange governing delivery.

b. Depositary Receipt Mechanism

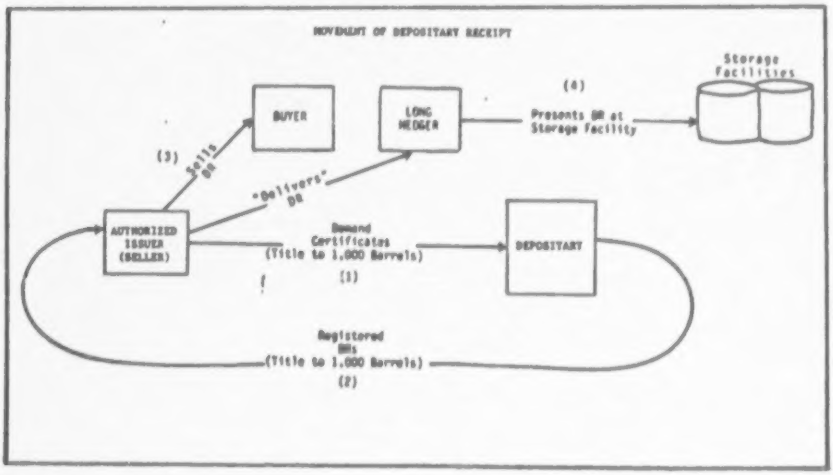
The Chicago Board of Trade is planning to use the second method of delivery referred to as the depositary receipt mechanism. This method of delivery does not involve the immediate transfer of fuel from the possession of the seller to the possession of the buyer. Instead, the buyer receives from the seller (through the clearinghouse) a depositary receipt or DR. Payment is made in full at the time the DR is received by the buyer. The DR entitles the buyer to lift the contracted volume of product from the seller's storage facility at any time. The buyer may lift it immediately or wait. However, if the buyer chooses to postpone lifting the product, he obligates himself to paying a 1¢ per barrel per day storage premium. The buyer holding the DR also has the option of selling the DR; the DR is a negotiable item which can be sold and resold indefinitely. Once the buyer has received the DR, he has technically taken delivery on his contract and the position is closed. The clearinghouse has no interest or involvement in when and by whom the product is subsequently lifted from the storage tank.

Planned use of the depositary receipt mechanism by the Chicago Board of Trade is an attempt to reduce potential logistical problems inherent in the wet barrel delivery mechanism. It also works to reduce the potential for pressure on spot prices resulting from wet barrel deliveries. This pressure on spot prices results from the possibility that several buyers could designate the same delivery site and the same time within a given delivery month. This sudden surge in demand can tax the available supply and cause a temporary but sharp jump in the local spot prices. Spot prices may also be influenced by a number of sellers going to the spot market to buy product to satisfy their delivery obligation stemming from their short positions. Use of the depositary receipt mechanism permits the lifting of the product to be carried out over a longer period of time--not just in the delivery month. By spreading out the liftings, the pressure on prices is diffused.

Only companies authorized by the Commodities Board of Trade may issue DRs. Such companies are generally refiners, wholesalers, or other firms in the petroleum industry which have sufficient storage capacity to hold fuel prior to lifting by the buyer and have access to pipelines. If a seller in the futures market is not authorized to issue a DR, it must buy one from a company that is authorized. The buyer of the DR must pay the full face value of the contract at the time the DR changes hands.

From the transit operator's (i.e., buyer of the DR), point of view, the DR is as good as having oil in the bank. To understand why this is the case, it is useful to understand what lies behind the DR. Exhibit VI illustrates the creation and movement of DRs.

EXHIBIT VI


MOVEMENT OF DEPOSITARY RECEIPT
Storage Facilities
(4)
BUYER
LONG HEDGER
Presents DR at Storage Facility
(3)
Sells DR
"Delivers" DR
AUTHORIZED ISSUER (SELLER)
Demand Certificates (Title to 1,000 Barrels)
(1)
DEPOSITARY
Registered DRs (Title to 1,000 Barrels)
(2)

The first step in the DR delivery process is the creation of a DR. This is initiated when an authorized issuer (i.e., refiner, wholesaler, etc.) gives "demand certificates" representing title to 1,000 barrels of oil, and a letter of credit to the depository. The depository is a subsidiary of the clearinghouse and is responsible for accepting and holding the demand certificates and letters of credit. In return for the demand certificates, the depositary registers and issues DR's to the authorized issuer. Each DR is title to 1,000 barrels of oil. Upon receipt of the DR's by the authorized issuer, it is free either to use the DR's to satisfy delivery requirements resulting from a short hedge, or to sell the DR's on the open market.[1]

The buyer who takes delivery by way of accepting a DR has three options. First, he can hold the DR indefinitely. However, this would soon become an expensive option because he is paying 1¢ per barrel per day for storage, and he is paying interest on the money he used to pay for the DR upon its delivery. Second, he can give the DR to the depositary in exchange for which he receives a demand certificate. The wet barrel delivery location is identified on the certificate. The buyer has one day to submit to the company storing the fuel instructions as to when and where the fuel is to be lifted. Third, he can sell the DR. The price at which the DR may be sold will be determined by existing market conditions. It can be expected that the depositary receipt will run somewhat below the current spot price to allow for the storage premium the buyer would have to pay.

c. Other Delivery Procedures

Though each exchange has its own set of rules governing making and taking delivery, exceptions to the established procedures are possible. These exceptions take place only when both the buyer and seller believe it is more convenient to work out an alternative method and agree to an alternative arrangement. Exceptions to normal delivery procedures usually take one of two forms.

The first is referred to as an exchange for physicals (EFP). In an EFP, the buyer and seller match themselves on their own without the assistance of the clearinghouse. This must be done before trading in the contract ceases. The parties notify the clearinghouse of their desire to be matched, and are automatically matched by the clearinghouse. The two parties may renegotiate any or all parts of the contract including delivery procedures, delivery location, and quality specifications.

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[1] Guide to Energy Futures, Jane Jachimczyk (McGraw-Hill, February 1983).

The second procedure is known as an **alternative delivery procedure (ADP)**. Under an ADP, the buyer and seller who have already been matched by the clearinghouse may agree to make and take delivery at a location outside the prescribed delivery area of the exchange. The parties may also renegotiate the quality and price of the fuel (a premium for higher quality; a discount for lesser quality). The price may also be altered as a result of a change in location of delivery.

The EFP and the ADP may offer the buyers and sellers who want to take and make delivery respectively a degree of flexibility not found in the standard procedures of the exchange. Traders may make the delivery process more compatible with their normal business operations. The EFP permits two parties who have a steady business relationship to undertake a delivery with one another.

However, there are disadvantages to these delivery procedures. First, they veer away from a central benefit offered by the standard delivery procedures--predictability. Once two parties decide to go on their own and work out alternative delivery methods, they assume the responsibility for coming to a mutually agreeable plan. The details of the delivery plan may or may not be known when the clearinghouse is notified of their intention to adopt an EFP and an ADP. Secondly, by choosing either the EFP or ADP, another benefit derived by operating in the futures market is surrendered, and, that is the buffer provided by the clearinghouse between buyer and seller. By opting for one of the alternative methods, the parties place themselves in the position where they must work with one another. This effort requires the allocation of manhours to work out a deal and also introduces the element of personalities. In short, the protection inherent in the standard arms-length relationship with the other party is eliminated.

E. Costs

1. Highly Leveraged Market

What are the costs involved in hedging in the futures market? This question is usually the second one to be asked by people considering the futures market. It is preceded only by the question, what are my risks? Before identifying the specific costs involved in hedging, it is first important to understand that the futures market is a highly leveraged market. That is, a relatively small amount of money needs to be tied up to maintain a long or short hedge. Thus, trading in the futures market does not necessitate the allocation of a sizable portion of an organization's cash. On the other hand, the fact that the market is highly leveraged may lead to problems of over extension if the hedger focuses only on margin requirements (examined below) and loses sight of the potential impact of adverse price movements.

2. Margins

A margin in commodity trading is a good-faith money deposit made by the hedger or speculator to his broker, who in turn places it with the clearinghouse. The margin is a means by which the brokerage house reduces its own risk. In every transaction, the brokerage house guarantees the credit worthiness of its client to the exchange. In the event of default by the broker's client, the brokerage house is held liable by the clearinghouse. By requiring a margin from the trader, the broker is reducing his exposure to financial loss as a result of adverse price movements and defaults.

Each exchange establishes its own minimum margin requirement. The minimum margin is generally around 10 percent of the contract value, but it may be as low as 5 percent or as high as 20 percent. A broker may require a higher margin than the minimum set by the exchange.

Unlike the margin in the stock market, the margin in the commodity market is not partial payment for the contract. Neither is the margin a fee paid to either the broker or the clearinghouse. The margin is used to cover adverse price movements between the time a position is established and the time it is liquidated.

The value of the margin can vary hour to hour or day to day depending on price movements in the market. If price moves against the hedger, the value of the contract will decrease. As a result, the hedger may be notified by his broker that he must deposit additional funds to maintain his margin. This notification is referred to as a margin call. For example, let us assume that on March 1 a transit property buys one July fuel oil contract at $1.00 per gallon. The contract value is thus $42,000. Assuming the exchange requires a 10 percent margin, the transit property deposits $4,200 with the broker, so the margin value is $4,200. The very next day, a July fuel oil contract is being traded at 98¢ a gallon. A drop in price constitutes an adverse price movement for a long hedge (a long hedger buys in anticipation of higher prices). The contract value has decreased to $41,160. If the transit property chooses to liquidate its position by selling its contract, it would sustain a loss of $840. The transit property does not choose to liquidate. Consequently, its margin is marked to the market (i.e., adjusted to reflect the loss or gain in the value of the contract) and the value of its margin is reduced by $840, leaving it with a value of $3,360. At this point, the transit property may receive a "margin call", and could be asked by the broker to deposit $840 into the margin to return the value of the margin to the original $4,200. This additional $840 constitutes an expenditure or a loss to the transit property. Small adverse price movements rarely result in a margin call. However, the hedger must be prepared for one at any time.

Through the use of the margin, the hedger gains access to a profit realized by a favorable price movement. For example, assuming the same set of circumstances as above (i.e., buying a contract at $1.00 per gallon, thus having a contract value of $42,000, and a margin value of $4,200), if the price increases, say to $1.02, then the value of the contract would be $42,840, representing a gain of $840. Assuming the transit operator chooses not to liquidate, the additional value of the contract would be added to the margin account bringing the margin value up to $5,040 (4,200 + 840). At this point, the transit operator has the choice of either leaving the $840 in the margin account to cover possible adverse price movements or withdrawing the $840.[1]

The process of "marking to market" results in the hedger realizing profits or sustaining losses little by little over the life of the contract. Consequently, there is no large profit or loss when a position is liquidated.

3. Commissions and Fees

Each trader pays a commission to his broker when a position is liquidated. The size of the commission ranges from $20 to $100 depending on the volume of trading undertaken by the hedger. Though each exchange has its own minimum commission for its members, hedgers must discover the exact size of the commission from the particular brokerage house with whom they are dealing.

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[1] A margin can and should be an interest earning account.

The commission pays for the broker's services in opening and closing a position, as well as for maintaining margin.

The largest cost to the hedger will normally be the fee paid to outside consultants who are hired to first assess the feasibility of entering the futures market, and second, to develop a hedging strategy if the decision is made to enter the market. These fees are negotiable.

4. Maximum and Minimum Price Moves

The fact that the margin requirements, commissions and fees are relatively small compared to the value of the contracts being traded means that the transaction costs will not be of major concern to a transit property hedging in the futures market. What will be of major concern will be the potential for sudden losses as a result of an unforeseen event affecting the supply and demand and, consequently, the price of fuel oil. A sudden unexpected adverse price movement might place the transit property in the position of having to make an instant decision as to whether it should invest more money to maintain margin or liquidate before the loss becomes larger.

Fortunately for the hedger, there are rules which protect the hedger against a sudden crash. These rules stipulate minimum and maximum price moves allowed by the governing board of the exchange in a given day. For example, the New York Mercantile Exchange has a normal limit of 2¢ per gallon above or below the previous day's closing trade on all refined petroleum products. If the 2¢ limit is reached by the closing trade, the limit is raised to 3¢ in the next trading day. If the 3¢ limit is reached, the limit is raised to 4¢ in the next trading day. This 4¢ limit is the maximum change from the previous day allowed by the exchange. The only exception to this maximum change is found in the position month (i.e., month immediately preceding delivery month) during which there is no maximum price move.

The maximum price move affords the hedger time to decide what course of action he wishes to take, and reduces the risk of a substantial loss as a result of quirks in the market. It also allows the clearinghouse time to carry out its record keeping responsibilities, and to match buyers with sellers.

The exchanges also have rules covering minimum price moves. The minimum price move in fuel oil and gasoline is .01¢ per gallon which is called a "point". A point is the smallest amount by which a trade may be more or less than the previous trade. Thus, if a transit operator owns a single contract representing 42,000 gallons and the market moves one point, $4.20 is either gained or lost depending on the position held. This also means that for every one cent charge per gallon, the hedger either gains or loses $420 on each future contract.

III. ADDRESSING THE FEASIBILITY OF FUTURES MARKET TRADING

A. Introduction

1. Purpose

The purpose of Part III is to establish a framework within which each transit operator can assess for itself the feasibility and merits of trading in energy futures. There is no blanket conclusion that can be offered. The costs and benefits of this option can best be established by those people familiar with the financial and diesel supply situations and the management perspective of a particular transit property. To assist the planning staff of each property, the questions which need to be addressed are identified and examined. That is, the variables upon which a decision can be made are delineated, and their significance is explained.

By addressing these questions, the transit property will be forcing itself to look at the kinds of problems often put off due to the pressures of day-to-day operations. Even for systems that have devoted time and effort to preparing for fuel emergencies of one type or another in the past, addressing these questions again may be useful because the environment in which transit properties acquire diesel fuel has changed with the advent of decontrol.

2. Impact of Decontrol

Decontrol in the oil industry has brought about a major shake-up at all levels of the petroleum product marketing chain. Distribution of refined products through a vertically integrated company is no longer the industry standard. Diesel suppliers are less and less the marketing arm of a refiner. An increasing number of suppliers, wholesalers and retailers are becoming independent marketers. This includes branded suppliers. Because diesel suppliers are independent businesses, they too will suffer the vagaries of the free market with no refiner there to soften the hardships of a tight market. Because diesel suppliers can not count on preferential treatment by any given refiner, it would be unwise for transit operators to count on preferential treatment by any given diesel supplier.

Uncertainties over prices and supply availability have led an increasing number of petroleum refiners and marketers to look to the commodity futures market as one means of reducing risk. Petroleum companies view the commodity futures market not as a panacea for the uncertainties inherent in a deregulated petroleum market, but as one possible mechanism for re-establishing some degree of predictability particularly in the area of price.

Though transit operators as bulk end-users do not resell diesel fuel and are not interested in protecting margins or market share, transit properties are like the petroleum companies in that their operations may be adversely affected by sharp price changes and supply interruptions. Consequently, transit properties may also look to the commodity futures market as one of several ways to reduce risks.

Scepticism is only natural when examining a new concept, and, in fact, should be encouraged. Scepticism will result in probing questions which need to be asked before a transit operator can make a final assessment of the feasibility and utility of trading in the energy futures market.

3. Identify Major Concerns

In order to determine the feasibility of trading fuel oil futures, a transit property first has to identify its major energy concerns and the potential adverse impact of these concerns on the operation of the system. Are the concerns related to fuel price? Is there concern that diesel prices will rise sharply within the contract year? If prices do rise, are there adequate funds to cover the additional cost? Conversely, is there a chance that prices will decline below the negotiated contract price? If so, will the transit property benefit from the lower price?

In addition to price, there may be concern over the availability of supply. On how many sources of supply does the transit property rely? How vulnerable are these dealers to supply interruptions up stream (i.e., in the crude oil market)? Are there alternative sources of diesel fuel readily accessible if the dealer(s) with whom the property has a contract defaults? If so, what are these alternatives and how would they be utilized in a crisis? How would a diesel fuel shortage specifically affect operations of the transit system?

There may also be concerns relating to management of the transit system in times of crisis. Will the implementation of one emergency response action as opposed to another affect the responsibilities and operation of employees. Are supervisory personnel trained and prepared to administer emergency plans? How many hours a day does the property want its management staff overseeing any one particular emergency response activity? Will outside help be necessary to effectively and efficiently respond to a supply emergency?

When answering these and other related questions, the property's planners should prioritise their concerns and determine what problem is both most likely, and would have the most adverse impact on the transit property. By prioritizing the concerns, the planners will be in a better position to determine if trading energy futures offers benefits that match the high priority problems. Identifying potential problems is the first step. The second step involves examination of issues related specifically to trading in the energy future market.

B. Specific Questions to be Addressed

Questions listed below are divided into two categories: (1) price questions; and (2) supply questions. The relative importance of the various questions within each group needs to be established by the transit organization itself.

1. Price Questions

a. What do I expect diesel prices to do in the next 12 months?

Unfortunately, the first question that needs to be examined is also the most difficult one to answer with any degree of certainty. It may seem to be a question only those who operate in the oil market every day would be in a position to at least hazard an educated guess. To some extent this is true. Consequently, rather than attempting to look into the future on one's own, it is recommended that specific sources be referenced. Price projections on refined petroleum productions may be obtained free of charge from the Department of Energy's short term energy forecast. Prices are projected for the upcoming months. Price projections may also be obtained for a fee from several private sources such as Data Resources, Inc. (DRI) and Chase Enconometrics. These three sources make projections in dollars. Other sources offer assessments of trends though specific dollar figures may or may not be given. For instance, Petroleum Intelligence Weekly, and the Oil and Gas Journal often contain articles in which demand, supply and price trends are given. Another source of information on future prices would be the transit property's supplier(s). The supplier will quote a price which covers his present and future cost and allow for a profit margin. To determine this price, he will have made an assessment on his own as to projected supply/demand/price trends, possibly using information obtained from his refiner. Yet, another source of information for diesel price projections would be national and local weather services. Since No. 2 fuel oil can be used as either diesel fuel or heating oil, the prices of the two products are often just about the same. Consequently, as the price of heating oil is influenced by the coldness or mildness of a winter, so is the price of diesel fuel.

Projecting exact prices is not necessary. What is necessary is to get a sense for the trend that can be expected. This will assist to determine if there is cause to be concerned about rising prices, and if the property is exposed to a depletion in funds as a result. If prices are expected to remain relatively constant, or go down, the need to trade diesel futures diminishes. If prices are expected to rise or fluctuate sharply, the usefulness of the futures market increases.

b. What is my exposure to price escalation under my current contract(s)?

The standard contract with a petroleum jobber includes an escalation clause. This clause usually permits the supplier to pass on to the customer on a cent-for-cent basis any operating cost increase incurred by the seller during the course of the contract. This clause permits the supplier to protect his profit margin. At the same time, it adds an element of uncertainty in the process of budgeting for diesel expenditures by the transit property. It is standard practice to put a ceiling on the escalation clause. This ceiling is usually in the 15 to 20 percent range, but it is a negotiated point and may be higher.

In order to assess the merits of hedging in diesel futures, the transit system needs to estimate its financial risk; that is, its exposure to escalating prices. This is all the more important if one expects diesel prices to experience a rise, or sharp fluctuations. The transit operator can calculate its expenditures for best case and worse case scenarios to establish the outside parameters. Estimating the possible increased costs will assist in determining vulnerability to price jumps, and it will establish the amount to be hedged if the decision is made to trade diesel futures.

c. Is there a correlation between local diesel prices and No. 2 fuel oil prices in any one of the futures exchanges?

Any transit operator considering hedging in the futures market must ascertain if there is a consistent correlation between spot prices in the local market, and No. 2 fuel oil prices in one of the two exchanges--New York Mercantile Exchange and the Chicago Board of Trade. A consistent correlation is necessary for hedging to work. Prices do not have to be the same, and in fact, this would be highly unusual unless the local market is in close proximity to the delivery area of the exchange. What is important is that the local spot prices for No. 2 fuel oil follow the same trend as the futures prices with the spread (i.e., the difference between the local spot prices and the futures price) remaining more or less constant.

The best way to determine if a direct correlation exists is to examine historical prices of the local market (this data may be available from the Department of Energy or from local suppliers) and futures prices (this data may be obtained from past issues of the Journal of Commerce and the Wall Street Journal.

In addition to examining historical data, the transit operator may track current price movements over a period of several months. However, it should be noted that because the demand for heating oil (the major use of No. 2 fuel oil) is cyclical, it is preferable to have a year of data to examine. It can then be determined if local diesel prices follow the ups and downs of heating oil prices throughout the year.

If a direct correlation is found to exist, hedging in the futures market becomes a more viable option. Conversely, if for any reason a consistent correlation is found to be lacking, hedging may be ruled out.

d. In which futures market should I trade?

The question of in which futures market should one trade is related to the preceding question in that, all else being equal, a transit operator should trade in the futures market in which the prices exhibit the strongest correlation with local diesel spot prices. Having said this, it must then be said that all else is rarely equal. Thus, other factors have to be taken into consideration. This is particularly true if the hedger is interested in the possibility of taking delivery. In this case, the hedger needs to examine the various ways he could physically move the product from the several delivery areas to identify the least costly route. Generally speaking, pipeline transportation is less costly than barges, and barges are less costly than railroad tank cars, which are less costly than tank trucks. Consequently, if a transit property can receive product via pipeline from one delivery area as opposed to any of the other means from another delivery area, it would probably be better to trade in the market where pipeline delivery is possible.

If delivery of wet barrels is not contemplated, the decision would center around the question of basis (refer back to Part I, Section B for an explanation of basis). Since hedging is, in essence, substituting basis risk for price risk, the transit operator should select the exchange in which the basis is the most constant. This is just another way of saying that one should hedge in the market where the correlation between spot prices and futures prices is strongest.

e. Could the transit system absorb any financial loss as a result of hedging in the futures market?

Though it is the speculator and not the hedger that assumes risk, the hedger is not immune from risk. As examined under "Margins", marking to market may require the transit operator to make a payment to the broker so that the margin is maintained. The question then becomes, does the transit system have available on a day-to-day basis the necessary funds to cover this requirement?

Exactly how much will be needed will depend on the value of the contracts, the number of contracts, and the margin requirement of the broker. The net amount paid out will be determined by the ratio of favorable to unfavorable price movements. Though most medium to large transit systems would likely find this draw on available cash acceptable, it is still a factor not to be overlooked in ascertaining the feasibility of hedging.

One saving grace in sustaining a loss in the futures market is that the loss is paid out over time, and not all at once. Moreover, though hedging is not devoid of risk, neither is a supply contract which permits the supplier to pass on to the customer increased costs. The question must be asked, can the transit system afford to pay to the supplier 15 to 20 percent or more than anticipated. This may also strain the cash position of a property. In short, hedging does involve some financial risk, but so too does the normal contract.

f. Can I use the futures market to negotiate a fixed price contract with a supplier?

Hedging in the futures market is being examined as a means by which transit operators can reduce their vulnerability to price increases. Much of the discussion has been based on the assumption that the transit property itself would buy and/or sell futures contracts, and by so doing become the hedger. Profits made in the futures market would be used to offset increased cost incurred in the wet barrel market. Yet, it must be recognized that hedging by the transit property would not be necessary if a fixed price contract were negotiated with the supplier. With a fix price contract, the transit property would not be exposed to any risk of price shock. Funds could be budgeted for fuel acquisition knowing that at least this one operating expense would remain stable for the life of the fuel contract.

Historically, the problem has been that no diesel supplier would quote a fixed price. By so doing, he would run the risk of having his margin squeezed to the point of incurring losses as a result of rising costs. Thus, the escalation clause became a fixed item in any supply contract.

This is no longer the case. The existence of a sound futures market in No. 2 fuel oil has made the escalation clause in diesel supply contracts obsolete. This obsolescence stems from the fact that the supplier can hedge in the futures market. The supplier can protect the margin he factors into a supply contract with a transit property or any other bulk end-user. Since the supplier can protect his margin by hedging, he can offer a fixed price contract to the end-user at little risk to himself.

The fact that the supplier can hedge means that the transit operator can benefit from the futures market without taking an active role in the market itself. The supplier enters the futures market, hedges his wet barrel position, and offers a fixed price contract to the transit property.

This scenario assumes that the supplier is willing to enter the futures market. Is this a realistic assumption? The answer is probably no. From the supplier's perspective, it is easier and safer to continue doing business in the usual manner, and to cover his risk with an escalation clause. The typical diesel fuel supplier has no more experience and no more understanding of the futures market than do transit properties. Consequently, he can be expected to be as apprehensive at the prospect of trying this new mechanism as are transit system managers.

Yet, the fact remains that the supplier is competing for business in an open market. Moreover, any transit property of some size will represent a large potential customer. These two factors provide transit operators with leverage. This is particularly true in a soft market, i.e., a buyers market, the likes of which we are currently experiencing. Officials of the transit properties will simply have to make it clear that only fixed price bids will be considered.[1]

2. Supply Questions

Several questions must be addressed which involve supply.

a. What is my current supply situation?

The transit property must assess its current supply situation. This involves calculating current and expected diesel requirements, reviewing the contents of the existing contract(s) for volume, delivery schedule, and, particularly, conditions under which the supplier may abrogate the contract. Is the transit operator to receive any preferential treatment in the event of a petroleum supply interruption? How many suppliers is the transit operator dependent on for diesel fuel? Upon what refiner or refiners is the supplier dependent? Does the supplier have any contingency plans for maintaining deliveries in an energy emergency? Answering these questions will allow the transit operator to ascertain its supply position and determine its vulnerability to a supply cut-off. The greater the vulnerability, the more necessary are contingency options such as hedging energy futures.

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[1] This tactic has been successfully used by the Washington Metropolitan Transit Authority in Washington, D.C. Details on the experience are presented in Part III, Section A of this study.

b. What do I expect to see in the diesel market in terms of supply availability over the next year?

Few transit properties or other bulk end users would be likely to invest time and money in contingency planning for supply emergencies if there is little likelihood of any shortage. Thus, a basic question to be addressed is, what do I expect to see in the diesel market in terms of supply availability in the next 6 to 12 months? The question of supply is related to the question of demand. Is demand for diesel expected to rise, fall, or remain the same? In short, expectations as to the future supply and demand for diesel fuel need to be explicitly made in order to determine the need for emergency contingency plans.

Currently, the petroleum market in general can be described as "soft"; i.e., demand is down relative to supply. Because supplies are plentiful, the petroleum market can also be described as a "buyer's" market. If one expects a buyer's market to continue, then it may be argued that time and money can be better used in things other than hedging. On the other hand, if one concludes that a buyer's market is not a permanent fixture, then activities such as hedging may be deemed worthwhile. In fact, if the soft market is viewed as a temporary situation, it would also be viewed as an opportunity to take the actions now that are necessary to protect one's supply position when the market tightens up as a result of an increase in demand or a drop in supplies.

One benefit to hedging is that there is little preparatory work involved in entering the futures market. Consequently, the potential hedger who is more interested in insuring available supply than in protecting against adverse price movements may wait until signs are pointing to a possible supply problem. The only disadvantage in putting off hedging until the last moment is that by the time a potential supply problem is apparent, the prices in both the spot market and the futures market will have already reacted and gone up. If a hedger buys a diesel futures contract at the new high price and the supply problem does not materialize or is less severe then expected, prices will drop leaving the hedger in the position of having to sell at a lower price, thereby sustaining a financial loss.

The lesson to be learned is simple. If a transit operator decides to trade futures as a hedge against supply interruptions, the time to enter the market is when the market is soft. In this way, the hedger has locked in as additional source of supply and at a low price.

It is not necessary to hedge a property's entire fuel requirement. In fact, it is more common for a trader to hedge only a portion of its requirements. For example, the Southern California Rapid Transit District hedges about 70 percent of it's diesel requirements in No. 2 fuel oil futures.

c. What happened to my diesel supplier(s) in the last petroleum supply interruption?

It may be of value to look at the past to see how the supplier with whom a transit property has a contract was affected in the last supply interruption, and to identify the actions he took in response. When doing this, however, it must be recognized that in 1979, when petroleum from Iran was stopped, crude oil price controls and product allocation regulations were still in effect. Therefore, caution should be used when drawing conclusions about the future based on the past.

Having said this, it may still be useful to examine how the supplier allocated his shortfall among his "non priority" customers. That is, upon what basis did the supplier cut back customers who were not guaranteed 100 percent of requirements under allocation regulations. The Uniform Commercial Code, which covered how a seller should have cut back non-priority users in 1979, is still in effect today. The code requires a seller to fulfill his contractual obligation as best he can. However, if conditions arise that prevent the seller from meeting his full obligation, he must allocate available supply among his customers in a "fair and reasonable" way (i.e., on a pro rata basis). Thus, a diesel supplier cannot cut off a transit system entirely while maintaining deliveries, even at reduced amounts, to other customers. Yet, transit operators should not put too much reliance on the seller's requirement to reduce deliveries on a pro rata basis.

One should note that a direction to allocate pro rata is far from an explicit and rigid set of allocation rules. The seller may choose to prorate based upon historic deliveries, historic contract amounts, current needs, current contract amounts, and, possibly, other grounds. By choosing one or another scheme to establish his proration, the seller may be able to favor one set of customers over another to a considerable extent.

The seller's flexibility in determining his pro rata scheme may work in favor of or against the interest of mass transit systems.[1]

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[1] J. White and R. Summers, Uniform Commercial Code, p. 135, 136 (1980).

Regarding the 1979 and 1974 oil shortages, the supplier should be questioned as to his experience in the past supply disruptions. At the very least, the supplier can be made aware of the transit operator's concern over a future supply disruption, and he can be questioned on his planning for such an eventuality.

As a result of this probe, the transit operator will have additional information which may be applied to the overall assessment of vulnerability to supply disruption.

d. Is delivery of wet barrels feasible?

If one is considering hedging for the purpose of insuring supply availability, the feasibility of wet barrel delivery must be determined. In theory, there are four ways transit systems may take delivery of wet barrels.

Option 1: Liquidation - Offset the long position, take the cash and buy fuel in the local spot market. (Technically this is not a "delivery" option.)

Option 2: Exchange - Take delivery of the fuel in the delivery area. Arrange an exchange whereby a jobber operating in both the delivery area and in the local market accepts the fuel from the transit property in the delivery area in exchange for delivering diesel to the transit property in the local market area.

Option 3: Transport the Product - Take delivery of the diesel in the delivery area and have it transported via pipeline, barge, railroad tank car, or tank truck to the transit property's local market.

Option 4: Alternative Delivery Plan or Exchange For Physical Negotiate an alternative delivery plan with a seller where the seller agrees to make delivery in the transit operator's local area, or at a mutually agreeable point along a major transportation route from which point the fuel would be transported to the transit property's area.

Option 1, liquidation, is technically not a method of taking delivery and, in fact, is the alternative to taking delivery. At the same time, liquidation results in the freeing up of the original margin plus any profit that had been allowed to stay in the margin account. This money may be used to purchase diesel fuel on the local spot market. This option negates the need to arrange and pay for the transportation of diesel from the delivery area to the local market and thus may result in the lowest price per gallon delivery of the four options.

Option 2, exchange, is a common arrangement found within the petroleum industry. The objective of the exchange is to avoid transporting the product which would add to its cost. An exchange involves the transit operator taking title to the diesel in the delivery area. This title is turned over to a jobber who holds title to another volume of diesel already in the transit operator's local area. In exchange for title to the product in the delivery area, the jobber gives the transit operator title to the diesel already in the local area. Thus, the transit operator has access to additional supply without having to bear the cost of transportation.

Option 3, transporting the product, involves taking delivery of the diesel at the delivery area and arranging and paying for its transportation to the local area. The feasibility of this option depends on the location of the transit property's operating area relative to petroleum product transportation routes. In other words, the usefulness of this option largely depends on how close the transit property is to a petroleum product, terminaling area situated along a pipeline or a navigable river or railroad. Because pipeline transportation is substantially cheaper than all other modes of transportation, proximity to a pipeline is preferable.

Hedgers trading in the New York Merchantile Exchange with a New York harbor delivery must recognize that delivery by pipeline from New York harbor is limited to a small geographic area shown as the enclosed region in Exhibit VII-A. This region includes areas west of New York City serviced primarily by the Buckeye pipeline. This area also includes New Jersey, the southern half of Pennsylvania, and Western Ohio, including Cleveland. Areas northwest of New York are serviced by the Buckeye/Mobil pipeline which runs into western New York state. No pipelines run due north or south from New York harbor.

An alternative to pipeline is barge transportation. Product movement by barge is very heavy along the New England coast. Mass transit operators in Connecticut, Massachusetts, or southern Maine in close proximity to New Haven, Boston, and Portland, respectively, may have the product barged up to the water terminals located in those cities. From these terminaling areas, the diesel would have to be moved inland by tank truck.

These few pipelines and barge routes are the only means by which transit operators could physically move diesel from New York harbor. Thus, transporting diesel from New York harbor is only physically feasible for a relatively few transit properties.

A large number of transit operators will find it feasible (though still expensive) to take delivery on the Chicago Board of Trade/Gulf Delivery contract and the New York Merchantile Exchange/Gulf Delivery contract.[1] The Chicago Board of Trade contract defines "Gulf Coast" as consisting of Harris, Galveston, or Jefferson counties in Texas. This would permit delivery to be taken by three common carrier pipelines: Colonial, which moves product up the Eastern seaboard to New York City; Texas Eastern, which moves product north through Little Rock and Indianapolis to Chicago and Cincinati, and, Explorer, which moves product north through Dallas-Fort Worth, Tulsa and St. Louis up to Chicago. See Exhibits VII-A, VII-B, VII-C and VII-D.

The New York Merchantile Exchange defines "Gulf Coast" as extending from Pasadena, Texas to Collins, Mississippi. This area also permits delivery into the Colonial, Texas Eastern, and Explorer pipelines.

In short, the east coast and central states are serviced by pipelines originating in the Gulf Coast area. Consequently, depending upon the location of the specific terminaling area at which the buyer takes delivery of the fuel, it may be possible to physically transport the fuel to a wide number of cities.

Operators considering taking delivery must not only select the terminalling area at which they will take delivery in the Gulf Coast but must also identify the terminalling area at which they can take the fuel from the pipeline. (Terminalling areas along pipelines are depicted as T in Exhibit VII. Taking delivery from a pipeline terminalling area will likely involve the use of tank trucks and this is the most expensive mode of petroleum product transportation.

An alternative to the pipelines originating in the Gulf Coast is barging the product up the Mississippi River. Of course, this alternative would be feasible only for those transit properties in close proximity to terminals along the river.

For all practical purposes, there are no major pipelines which move petroleum product from the Gulf Coast area to the Rocky Mountain states or to the Southwest and West Coast states. These two areas operate as distinct production and marketing areas with only small capacity pipelines linking them with each other and the Gulf Coast area. Therefore, transporting fuel by any means from the Gulf Coast to the Rocky Mountain, Southwest and West Coast states should be considered unfeasible.

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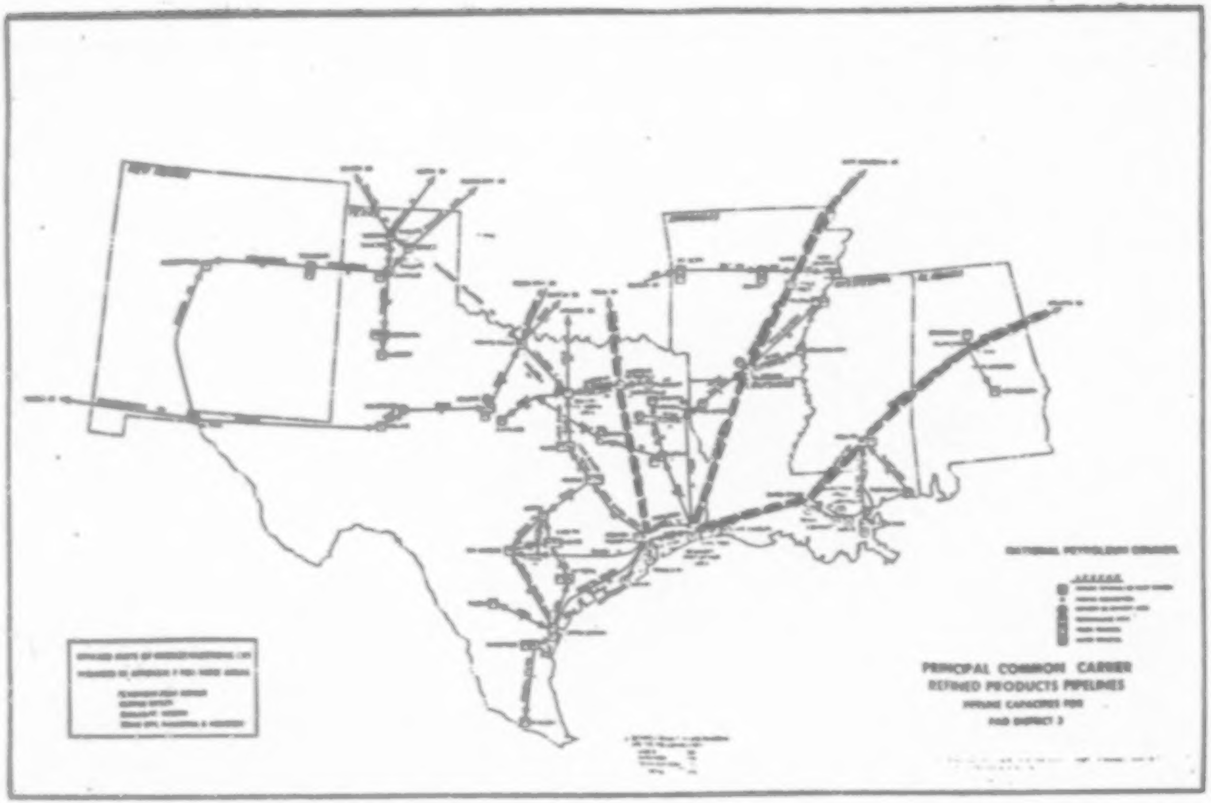
[1] These contracts have been approved by the Commodity Futures Trading Commission and trading of these contracts is expected to begin in the first half of 1983.

EXHIBIT VII-A

NATIONAL PETROLEUM COUNCIL
PRINCIPAL COMMON CARRIER
REFINED PRODUCTS PIPELINES
PIPELINE CAPACITIES FOR
PAD DISTRICT I
SOUTH CAROLINA

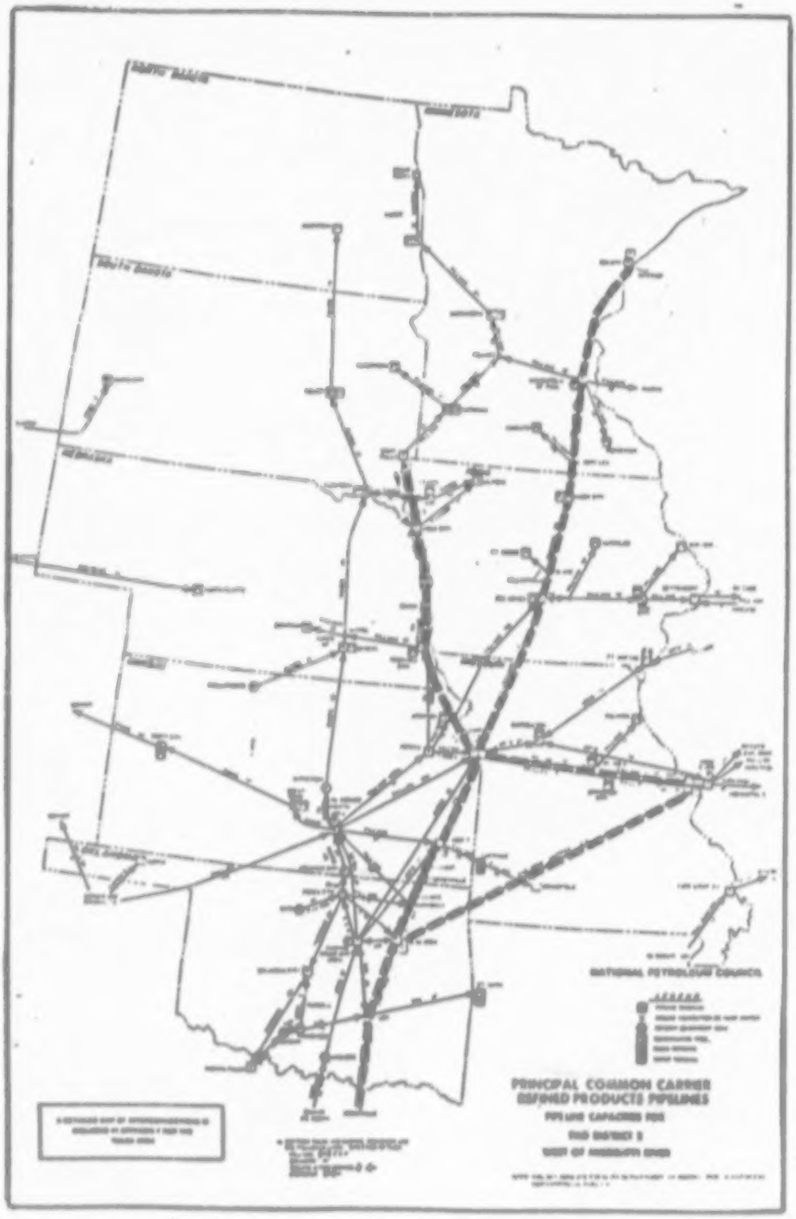
SOURCE: National Petroleum Council, _Petroleum Storage and Transportation Capacities_, 1979

EXHIBIT VII-B


NATIONAL PETROLEUM COUNCIL
LEGEND
PRINCIPAL COMMON CARRIER
REFINED PRODUCTS PIPELINES
PIPELINE CAPACITIES FOR
PAD DISTRICT 3

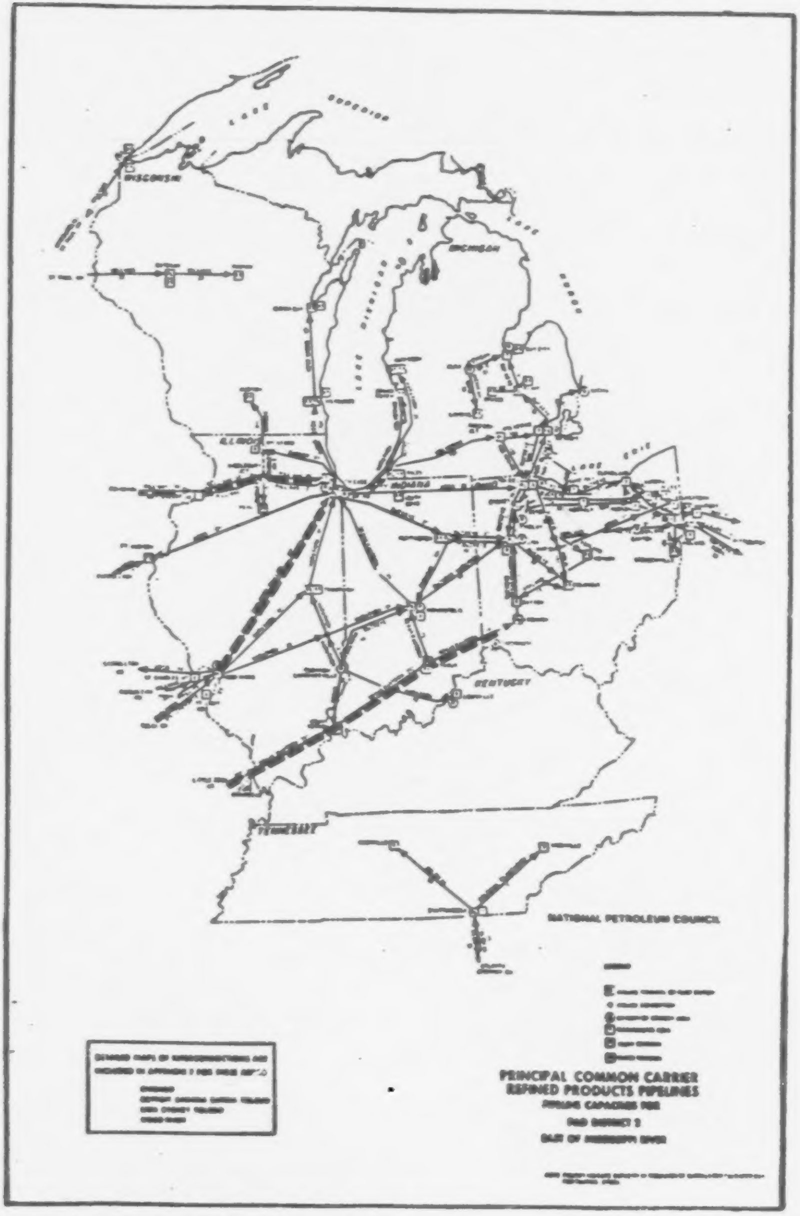
SOURCE: National Petroleum Council, _Petroleum Storage and Transportation Capacities_, 1979

EXHIBIT VII-C


NORTH DAKOTA
MINNESOTA
SOUTH DAKOTA
NEBRASKA
NATIONAL PETROLEUM COUNCIL
LEGEND
PRINCIPAL COMMON CARRIER
REFINED PRODUCTS PIPELINES
PIPELINE CAPACITIES FOR
PAD DISTRICT II
WEST OF MISSISSIPPI RIVER

SOURCE: National Petroleum Council, Petroleum Storage and Transportation Capacities, 1979

EXHIBIT VII-D


LAKE SUPERIOR
WISCONSIN
MICHIGAN
ILLINOIS
INDIANA
LAKE ERIE
KENTUCKY
TENNESSEE
NATIONAL PETROLEUM COUNCIL
PRINCIPAL COMMON CARRIER
REFINED PRODUCTS PIPELINES
PIPELINE CAPACITIES
PAD DISTRICT 2
EAST OF MISSISSIPPI RIVER

SOURCE: National Petroleum Council, *Petroleum Storage and Transportation Capacities*, 1979

The pipeline systems are presented to indicate what regions of the country could physically receive product from one of the two delivery areas--New York harbor and the Gulf. However, it must be understood that the cost in shipping product via these pipelines, particularly a relatively small volume on a one-time ad hoc basis is an expensive proposition. This is one reason that less than seven percent of all energy futures transactions end in an actual delivery. On the other hand, if the hedger's primary concern is protecting his fuel supply situation in times of an oil emergency, the cost of transporting the fuel may be irrelevant. At this point, the question becomes: "Can I move the fuel from there to here at any cost?"

Option 4, alternative delivery plan, or exchange for physical may permit the buyer to take delivery of the product at a more convenient location, that is, closer to the transit property's home area. This option could save the buyer money if the seller already has in place the required volume of fuel at or near the agreed upon place of delivery. If the seller agrees to deliver the product at a location outside the exchange's delivery area, the buyer should expect to cover the cost of transportation and whatever storage fees are incurred. The benefit of the alternative delivery plan is convenience, not necessarily lower costs.

In the final analysis, the feasibility of taking delivery and the merits of each option has to be determined on an individual organization basis. Knowledge of the petroleum distribution system is critical and is usually obtained from an outside consultant. Over time, this knowledge can become institutionalized in the transit property and, in fact, understanding of the product distribution system should exist in-house considering the dependence of the property's operation on diesel fuel.

e. Are there alternatives to the futures market which would provide equal or better protection of my diesel supply?

In an oil crisis under free market conditions, transit systems can look to only three conventional sources of diesel fuel. First, they can see if their supplier under contract will be able to maintain deliveries and, if not, the size of the cutback will have to be determined. Second, they can investigate diesel fuel available on the domestic spot market (the largest transit systems could even look to the international spot market at Rotterdam). Competition for the diesel not already spoken for will most likely be fierce. Third, transit systems can rely on whatever fuel had been stored for emergency use.

Contract suppliers, spot market, and storage are the only conventional places from which diesel fuel might be acquired. Each of these sources has its own benefits but the point to recognize is that the range of alternatives is narrow. The Federal government will not guarantee deliveries. The state government may or may not attempt to insure deliveries of fuel to transit operators. State allocation programs which do exist may or may not provide the necessary volume when and where it is needed.

It is because of the narrowness of conventional supply options in an emergency that the futures market option is considered to be a worthwhile alternative.

IV. PRELIMINARY ASSESSMENT

A. Recent Experience

Trading energy futures is a recently developed activity within the petroleum industry. It has been met with many questions and some apprehension. For the transit industry, trading energy futures is even newer and a more foreign activity. Consequently, many questions and even more apprehension can be expected.

The reasons for considering trading energy futures are a transit operator's vulnerability to diesel price increases and supply disruptions. If a transit operator feels secure and does not feel threatened by either contingency, then no time need be spent examining the benefits and costs of futures trading. On the other hand, if either one or both are of real concern, then examination of the futures option is justified.

To date, many transit systems have examined their positions in light of price fluctuations and supply vulnerability and have concluded that their situation warranted some form of remedial action. A few transit systems have examined the futures market option and have decided to hedge their diesel supply with No. 2 fuel oil futures. The largest transit system currently hedging is the Southern California Rapid Transit District (SCRTD).

In September, 1981, the state of California enacted legislation permitting the SCRTD and the San Diego Transit Corporation to trade No. 2 fuel oil futures on the New York Merchantile Exchange. Prior to enactment of this legislation, officials of these transit systems had spent a period of time tracking No. 2 fuel oil prices in the New York Merchantile Exchange against their local spot prices and had concluded that a strong correlation existed. Based on this correlation, they concluded that trading energy futures was a feasible mechanism for reducing their exposure to the volatility inherent in the the wet barrel market.

It should be noted that the California transit officials were interested in trading energy futures for the purpose of reducing price risk, and not as a source of emergency supply. The California Legislature decided to allow the two transit systems to trade in the futures market exclusively in No. 2 fuel oil futures. The systems could buy and sell contracts with the investment decisions resting with the systems' board of directors. The SCRTD intends to hedge about 70 percent of its total diesel fuel supply. The SCRTD is the largest all-bus transit district in the country consuming about 35 million gallons of diesel a year. A 70 percent hedge equates to 583 futures contract (35,000,000 x .70 = 24,500,000 ÷ 42,000 [1 contract] = 583.3). The budget planning requirements of the system necessitated more predictable fuel costs than had previously been offered by the diesel suppliers. Consequently, the decision in favor of hedging was made.

As earlier discussed, some transit operators may be interested in hedging but are unwilling or unable to trade in the futures market directly. In this situation, the transit operator may hedge through his supplier; that is, have his diesel fuel supplier trade in the futures market.

This option has been successfully undertaken by the Washington Metropolitan Area Transit Authority in Washington, D.C. In June, 1981, the Transit Authority awarded a one year contract to American Refining Company of Villanova, Pennsylvania. American Refining offered a contract in which the prices to be paid by the WMATA were fixed at the time the contract was signed. The prices were pegged to the No. 2 fuel oil futures prices for the upcoming twelve months on the date the contract was signed. Thus, the Washington Metropolitan Area Transit Authority knew exactly what it was going to be paying for diesel fuel in each month over the following year. In addition, the contact at $17.5 million was $1.5 million less than had originally been budgeted. American Refining Company was able to offer this fixed price contract because it was willing to hedge its position in the futures market. Gulf Oil Company, Washington's traditional supplier, was apparently unwilling to follow suit.

Though these systems have been hedging for a relatively short time, system officials have stated that they are pleased with the results and will continue to hedge.

Several properties have considered trading in the futures market, but for one reason or another have decided not to do so. For example, in early 1982, Tri-County MTD of Portland, Oregon, undertook extensive analysis of the costs and benefits involved in trading in the New York Mercantile futures fuel oil market. Their objective was first to determine if hedging in the futures market would yield financial savings and lower risk, and second, if the futures market could be used as an additional source of fuel supply. As a result of this analysis, Tri-County MTD decided not to enter the market.

There were three reasons behind the decision not to enter the futures market, yet the second and third reasons were related upon the first.

The first and most important reason for not trading diesel futures was that there was little or no incentive to trade futures, given the current market conditions in petroleum products. It was felt that the world-wide petroleum supply glut and steady or falling petroleum prices negated the need to take steps to reduce costs and supply risks. It made more sense to invest funds allocated to diesel costs in interest-earning accounts, and withdraw the funds as needed to either pay for fuel delivered under contract, or to buy diesel on the local spot market. Moreover, when the costs of taking delivery were analyzed, i.e., transportation, storage and fees, it was concluded that the costs outweighed the benefits.

A second reason given for not hedging was unfamiliarity with the petroleum products transportation system. It was felt, and rightly so, that if one were to enter the futures market with the idea of possibly taking delivery, some understanding of petroleum product transportation was necessary. System officials recognized that they could obtain advise from the petroleum common-carrier serving their area, and that an outside consultant could be hired to provide the property with the needed expertise. Yet, it was felt that these steps were not justified given the existing market conditions.

A third problem was the absence of sufficient storage capacity in close proximity to Portland. In the event that delivery was taken on a 42,000 gallon contract, officials faced the problem of having to store the fuel until needed. The property itself did not have adequate storage facilities for this volume. One remedy considered was entering into a joint venture with another property which would receive and store a portion of the fuel. Again, this action was not deemed necessary given the soft market conditions.

In short, Tri-County MTD identified the costs and benefits involved in trading fuel oil futures, and concluded that the costs outweighed the benefits given the current market conditions.

Another transit property that has examined the futures option, and has decided to adopt an alternative approach to price and supply security is Seattle Metro in Seattle, Washington. Property officials assessed the costs and benefits of hedging in the futures market relative to the costs and benefits of buying a tank farm for bulk storage of diesel.[1] The final decision was to opt for the bulk storage option. The reasons for not selecting the futures option were: (1) soft prices and abundant supplies diminished the incentive to enter into a venture of an unfamiliar nature; (2) hedging offers price protection more than price savings; (3) enabling legislation would have been required, and system officials wanted to avoid the need for legislative action; and, (4) whereas hedging in the futures market is somewhat of an intangible action, owning and controlling a bulk storage facility is concrete, and, thus, is more readily accepted and understood by state and local officials, as well as the public.

The Seattle metro official responsible for diesel fuel planning and acquisition was quick to point out, however, that hedging was only "put on the back burner" for the time being. Hedging was not ruled out entirely, and would be reassessed if market conditions changed radically.

The experience of Tri-County MTD and Seattle Metro highlights a significant point. These transit properties examined the merits of hedging energy futures during a period of normalcy, and not at the outset of an emergency. By examining the option under normal conditions, they allowed themselves the time to undertake comprehensive examinations. They were not under pressure to come to quick decisions. Thus, the right questions were asked, and there was adequate time to determine answers. Though the decision in each case was not to enter the market at that time, these properties will benefit from this experience when the market tightens up. The property officials will be able to reaccess their decision based on the new market realities and take whatever action they deem appropriate with a minimum of delay.

B. The Final Decision on Hedging

Whether or not a transit system hedges in the futures market will ultimately be determined by the senior managers of a system. In the case of a publicly owned system, the decision may also involve local and/or state legislators. At this time, the single largest factor against hedging is the lack of understanding by these parties as to how the futures market operates and what benefits it has to offer. This report has attempted to shed some light on these two questions recognizing that all questions can not and should not be addressed in an introductory paper. It is to be expected that transit officials and public officials will at first view hedging with scepticism. In the long run, this scepticism may have a positive affect if it breeds questions. Questions concerning the operation, benefits, and risks need to be addressed in detail. Only then can an informed decision be made as to the merits of hedging in the futures market. In this study, hedging by transit systems has been put forth as one response, but certainly not the only response, to price and supply volatility in an energy market governed by free market principles. Other options exist and will be the focus of future studies.

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[1] Bulk storage of diesel fuel is another option that merits consideration by transit properties. This option will be examined in a subsequent study by the Urban Mass Transit Administration and the report should be published in mid 1983.

GLOSSARY

ALTERNATIVE DELIVERY PROCEDURE:

Procedures to make and take delivery arranged by the buyer and seller after having been matched by the clearinghouse. These procedures differ from those specified in the futures contract.

BASIS:

The difference between the price of the commodity in the spot market and a specific futures price.

BASIS RISK:

Probability that physical market prices and futures prices will not move in perfect parallel, and may result in a diminished profit or greater loss. On the other hand, increased profits may result from the two prices not moving in perfect tandem.

CLEARINGHOUSE:

The institution associated with a particular exchange which maintains all records, collects and distributes payments, and matches hedgers on delivery day.

COMMERCIAL:

An institution or individual whose normal day-to-day business involves the commodity being hedged in the futures market. Generally, commercials have the facilities to physically make or take delivery. Synonymous with "hedger".

CROSS HEDGE:

Trading one commodity in the futures market to hedge a different commodity in the physical market. The two commodities must have a strong price correlation.

DELIVERY AREA:

The geographical location specified by the exchange in which delivery of the commodity must be made or taken. The New York Merchantile Exchange is currently trading a No. 2 fuel oil contract which specifies the New York harbor as the delivery area. In addition, the New York Merchantile Exchange and the Chicago Board of Trade have each had a No. 2 fuel oil contract approved by the Commodities Futures Trading Commission which designate the "Gulf Coast" as the delivery area. Trading of these contracts is expected to begin in early 1983.

DEPOSITARY RECEIPT:

Document which guarantees that a certain volume of a commodity having certain qualities is being stored. This document may be surrendered against a futures contract in exchange for the commodity, held indefinitely or sold. In energy futures trading, use of the depositary receipt is peculiar to the Chicago Board of Trade.

EXCHANGE (FUTURES):

Membership institution existing solely for the purpose of organizing and conducting the trading of futures contracts. It is ultimately responsible for guaranteeing the integrity of the futures contract.

EXCHANGE FOR PHYSICAL:

Delivery procedures which differ from those specified by the exchange, arranged by a buyer and a seller who match up with each other on their own before being matched by the clearinghouse.

FORWARD CONTRACT:

An agreement by which the parties agree to make and take delivery of a commodity in the future. Differs from a futures contract in that the parties privately negotiate with one another from the start; the commodity will definitely be delivered and accepted; and parties agree on the specific quantity and quality of the commodity.

FUTURES CONTRACT:

An obligation to make or take delivery of a certain volume of a commodity with certain qualities in a specified month. The price of a futures contract is set publicly by outcry on the floor of an exchange. There is rarely an intent to take or make delivery against a futures contract.

HEDGE:

The establishment of a position in the futures market (usually) opposite to a position held on the physical market as a protection against the possibility of adverse price movements in the physical market.

IMPERFECT HEDGE:

A hedge in which the hedger's position in the physical market is not completely covered. This condition primarily arises as a result of a change in the basis (see above); that is, the prices in the futures and physical markets do not move in perfect tandem. An imperfect hedge may also result from different volumes being traded in the physical and futures markets.

LIMIT ORDER:

An order in which the customer determines a specific limit on either the price or time of execution.

LIQUIDATION:

The closing out or termination of a futures position by taking an opposite, offsetting position, instead of making or taking delivery.

LOCATION BASIS:

The difference between the spot price of a commodity in the delivery area, and the spot price of the same commodity in the customer's local market.

LONG HEDGE:

The act of buying futures contracts. A long hedge is taken in expectation of rising prices. Because transit operators are concerned with reducing the impact of rising prices, they will usually take a long hedge. The operator buys the contract at a low price and subsequently sells it at a higher price thereby netting a profit.

MARGIN:

A good faith deposit made by the customer to his broker. It does not constitute partial payment on the contract or a commission. The margin is to be maintained at or above its original value until the position is closed out.

MARGIN CALL:

A request by the broker for additional funds from a customer to bring the value of the margin up to its minimum level (which is usually its original level).

MARKED TO THE MARKET:

The process of adjusting the value of the margin so it reflects profits or losses resulting from price movements in the futures market.

MARKET ORDER:

An order from the customer to the broker to buy or sell futures contracts as quickly as possible at the best price available at the time the order reaches the trading floor.

PERFECT HEDGE:

Is a hedge in which prices in both the futures market and the physical market move in exact parallel, and the same volumes are being dealt with in each of the two markets.

PHYSICAL MARKET:

The market in which the actual petroleum commodity is traded, that is, real barrels of No. 2 fuel oil are traded in the physical market whereas contracts or "paper" barrels are traded in the futures market. Synonymous with the "cash" or "wet barrel" market.

POSITION MONTH:

Month immediately preceding the month in which delivery is to be made or accepted. For example, if February contracts are being traded, January is the position month. Synonymous with "spot month".

SHORT HEDGE:

Is the act of selling futures contract. A short hedge is usually undertaken by a party who is buying the commodity in the physical market. A short hedge is taken in expectation of falling prices. Operators will take a short hedge only to protect themselves against having to pay a fixed contract price that is higher than the current market price.

SPECULATOR:

A trader who is not a hedger by virtue of the fact that the commodity which is traded has no bearing on his day-to-day business. He is betting that the futures price will move in a particular direction. The speculator must liquidate his position with an offsetting position.

STORAGE BASIS:

The difference between a commodity's spot price and its futures price in the delivery area. Normally the futures price will be higher than the spot price, in part, because it includes the cost of storing the fuel until delivery.

STOP ORDER OR STOP-LOSS ORDER:

An order to get the best possible price only if the futures price increases to a designated level. A sell stop is an order to sell if futures prices fall to a designated level. The purpose of a stop order is to minimize a loss or protect a profit.

STOP PRICE:

The designated price in a stop order which, if reached, triggers a move by the broker.

SPOT MONTH:

Month immediately preceding the delivery month. Synonymous with "position month".

WET BARREL MARKET:

The market in which the actual petroleum commodity, in this case No. 2 fuel oil, is traded. The term "wet barrel" is used to distinguish this market from the futures market in which futures contracts are traded and only rarely is the fuel oil physically traded. It is synonymous with "cash market" or "physical market".